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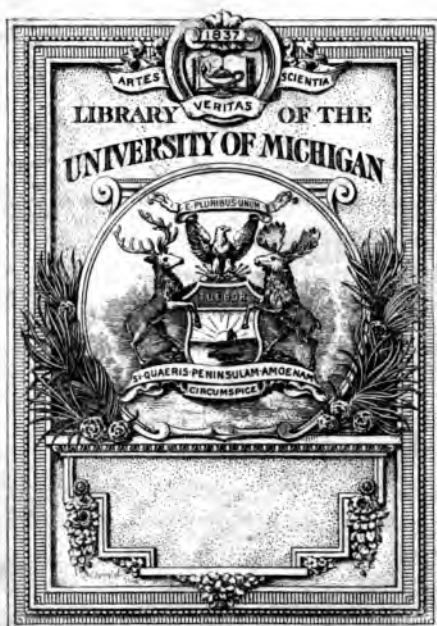
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FORTY YEARS AT THE POST-OFFICE





Yours sincerely,
F. E. Baines,

From a photograph by Lombardi & Co.





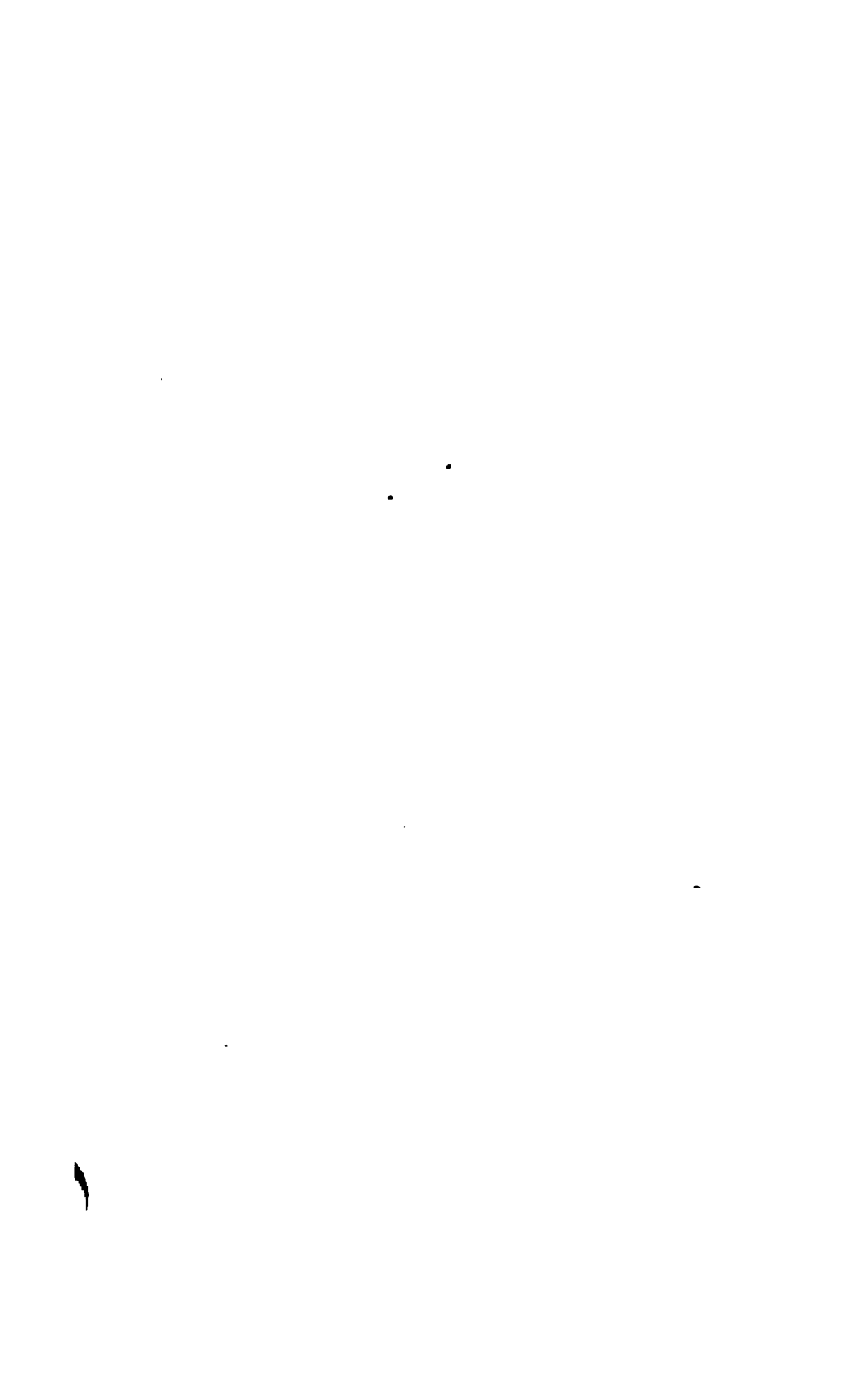
CONTENTS OF VOL. II.

PART IV.

CHAPTER	PAGE
XIII. THE ACQUISITION OF THE TELEGRAPHS - - -	3
XIV. THE DAY OF TS - - -	24
XV. THE FIRST LINE OF DEFENCE - - -	43
XVI. BEHIND THE SCENES - - -	57
XVII. BENEATH THE WAVE - - -	89

PART V.

XVIII. BLOCKS BY THE WAY - - -	105
XIX. THE PARCEL POST - - -	128
XX. THE ROAD REGAINED - - -	143
XXI. THE OUTER WORLD - - -	155
XXII. THE TRAIN AND THE BOAT - - -	191
XXIII. BY CORAL STRANDS - - -	222
XXIV. OVER THE DEEP BLUE SEA - - -	257
XXV. JUBILATION - - -	281
APPENDICES - - -	295
INDEX - - -	329



LIST OF ILLUSTRATIONS.

VOL. II.

PORTRAIT OF THE AUTHOR	-	-	-	<i>Frontispiece</i>
POST-OFFICE UNIFORMS, 1855 TO 1861	-	-	-	<i>Appendix M.</i>

FORTY YEARS AT THE POST-OFFICE



PART IV.

CHAPTER XIII.—THE ACQUISITION OF THE TELEGRAPHS.

CHAPTER XIV.—THE DAY OF TS.

CHAPTER XV.—THE FIRST LINE OF DEFENCE.

CHAPTER XVI.—BEHIND THE SCENES.

CHAPTER XVII.—BENEATH THE WAVE.



CHAPTER XIII.

THE ACQUISITION OF THE TELEGRAPHS.

NINE years had passed since my proposals for a system of postal telegraphs with a legal monopoly had been launched; still the Treasury made no sign. But, all the same, the time was fast approaching when the cherished scheme of 1856 should become a reality, and the day was certainly at hand when the Post-Office, at length taking up the question in earnest, should pave the way to that legislation which in 1870 gave to the country a postal telegraph system.

On September 15, 1865, Lord Stanley of Alderley (who, as his letter to me of March 8, 1857, will have shown, had long taken special interest in telegraphic questions, and was then Postmaster-General) directed Mr. Frank Ives Scudamore, one of the Assistant-Secretaries, to consider whether the assumption by the Post-Office of the control and conduct of the electric telegraphs throughout the United Kingdom would be attended with advantage to the State and the public.

In the following month the Edinburgh Chamber

of Commerce forwarded a memorial to the Government in favour of the telegraphs being managed by the State, the late Sir George Harrison, M.P., being its spokesman. Their grounds of complaint against the then existing system were high charges, frequent and vexatious delays, and inaccuracy. They stated that many important towns, and even whole districts, were unsupplied with telegraphic communication.

Mr. Scudamore's report showed how all these defects might be remedied, greater facilities afforded, and the telegraphs worked by the Post-Office to the public advantage. The results of his laborious inquiry are set forth in Parliamentary Blue-books of the period.

It would not appear that my scheme was by any means the first in order of date. Sir Rowland Hill, in his Autobiography, while referring to it as 'an elaborate memorandum comprising a complete plan,' adverts to a paper drawn up four years earlier—viz., in 1852—by Captain Galton; and Mr. Scudamore's report mentions a pamphlet published by Mr. Thomas Allan in 1854. He also wrote in July, 1866, that 'in 1856 Mr. Baines, an officer of this department, submitted to the Lords of the Treasury a plan "for the establishment, in connection with the Post-Office, of a comprehensive system of electric telegraphs throughout the kingdom";' and five years later that 'the proposals' (for the transfer) 'which were put forward by Mr. Baines in 1856, though not

the first in order of date, were the first which contained any practical suggestions as to the mode in which the transfer might be effected, any distinct practical statement of the advantages which might be expected to accrue from it, or any reliable data in support of the arguments advanced. At that time Mr. Baines had not long ceased to be an officer of the Electric Company, and had fully in his mind the disadvantages and difficulties which were inseparable from a tariff so variable as that which then prevailed. He proposed that the charge for transmission should be at the rate of sixpence for twenty words, irrespective of distance.' So, although my proposals were not first in order of date, it seems that they were reasonably definite, not only in Sir Rowland Hill's view, but in that of Mr. Scudamore.

It was in November, 1867, that the decision of the Government to proceed with a scheme of postal telegraphy was communicated to the Post-Office. As the Clerk-in-waiting of the night, it fell to me to open the letter of authority from Mr. George Ward Hunt, M.P., then Secretary of the Treasury. Mr. Benjamin Disraeli was the Chancellor of the Exchequer.

It was my good fortune to be called upon from the first to assist in preparing the preliminary reports, so the facts are familiar to me. As early as 1867 I framed maps of a scheme which was to include most towns of any size, and give a more liberal service to the Metropolis.

Lord Stanley of Alderley's action was followed up

by the Duke of Montrose and the Marquis of Hartington, his successors in the office of Postmaster-General; and at last—there being a strong feeling throughout the country in favour of postal control of telegraphic communication—it was decided that a Bill should be brought in to enable the Postmaster-General to acquire and work electric telegraphs.

The matter stood thus: Five powerful telegraph companies were in existence, the Electric and International, the British and Irish Magnetic, the United Kingdom, the Universal Private, and the London and Provincial Companies. There were others of less importance. Terms had to be made with all of them. The railway interest had to be considered, and the submarine companies to be thought of, though not bought.

A Bill drafted by Mr. W. H. Ashurst, the successor in the Solicitorship of Mr. Peacock, was presented to Parliament in 1868. The whole of the interested parties as one body petitioned against it. It went to a Select Committee. The late Mr. Rodwell, Q.C., led for the Post-Office; Mr. Denison, Q.C. (now Lord Grimthorpe), for the railway companies. Sir William Vernon Harcourt and other eminent counsel held briefs protecting various interests. Mr. Leeman, a very able solicitor, and Member for York, championed the railways. Mr. Ward Hunt, as chairman, held the balance true. It was a battle of Titans; there was hard hitting all round.

Mr. Scudamore continued to be employed as chief

agent in the matter. His ability and energy eventually overcame all prejudice and objections—even objections more powerful than prejudice, viz., those of vested interests.

Terms were at length adjusted with the railway companies. A draft agreement was settled with one company, and that served as a model for the rest. Daylight began to break. The telegraph companies, however, were coy. At length, when matters seemed to be at a deadlock, Mr. Scudamore and Mr. William Andrews, manager of the United Kingdom Telegraph Company, came to an informal understanding. The next step was to bring the principals round to their way of thinking.

A meeting was arranged at Highgate, at the house of Mr. Croll, chairman of the United Kingdom Company, four persons only being present. There was a long discussion, lasting far into the night. Draft after draft of proposed terms was prepared, only to be torn up, one obstacle being the difficulty of discovering an equitable method of protecting the just interests of the companies' officers.

Ultimately the goal was reached. The concurrence of the other companies and the Government had to be swiftly obtained, as the fight before the Committee of the House of Commons was still going on, and the session was drawing to its end. Twenty-four hours, however, wrought a great change: those who a day or two before sprang at each other's throats were now sympathetic allies; the opponents

of yesterday became close friends. So the opposition collapsed, and the Bill of 1868 became law.

On what had passed up to this time, part of a letter written by Mr. Scudamore throws sufficient light. It ran thus :

‘The telegraph branch has been under the charge of Mr. Baines, from whom one of the earliest propositions for the acquisition of the telegraphs by the State proceeded. He has worked with me from the time at which I first took up the scheme, and has from the first rendered most valuable aid. Indeed, it is not too much to say that without his help I could not have carried out the work up to the present time.’

This was generous language, which flowed quite naturally from Mr. Scudamore’s pen.

From the date of the passing of the Act of 1868, and especially from that of the Money Bill of 1869, a new era set in. The work, which had consisted chiefly of preparing for opposition to Bills in Parliament and of urging them into Acts, now turned on organization.

The scheme of the Post-Office, after buying up the plant of all the telegraph companies, was so to rearrange the wires as to give the best possible service to the towns through which they passed ; to run up new wires to towns and villages lying off the main trunks, and to weave the whole into one simple, effective, and durable fabric.

At the head of the telegraph companies were a

number of very able men. The late Hon. Robert Grimston as chairman, and my old colleague, the late Mr. Henry Weaver (he died in September, 1893) as secretary and manager, controlled the principal company. Mr. R. S. Culley, also a former colleague, was their engineer-in-chief, and Mr. W. H. Winter their assistant engineer. Both entered the Post-Office service. By other companies were employed the two Brights (the late Sir Charles, prominent at the laying of the first Atlantic cable, and his brother Edward, who was also an early fellow-worker with me), Mr. William Andrews, already mentioned, and Mr. Curtoys, likewise an associate in early telegraphy. We came amongst a friendly band; at least, we found it so as soon as cardinal differences were adjusted and everyone's interests secured.

The first step was to procure detailed plans of all the companies' wires. It was then decided to concentrate at the outset the whole of the London circuits at the central station of the Electric Telegraph Company in Telegraph Street, Moorgate Street, known to the initiated as LY.

The Electric Company worked on the 'Morse' principle and read by signs (*i.e.*, by dots and dashes on a paper riband); to some extent they used the 'Wheatstone' single-needle. The Magnetic Company favoured a beautiful bell instrument, invented by the Bright Brothers, and read by sound. The United Kingdom Company followed somewhat in the steps of the Electric Company, but as a notable feature of

their system they worked also the 'Hughes' type telegraph, which actually prints its messages. They started business on the basis of a uniform shilling rate, but ultimately coalesced with the other companies to the extent of adopting a scale of charge regulated by distance, and a common news supply. The London and Provincial Company relied mainly on the single needle.

Almost all the wires, except those in towns, were carried above ground. The Electric Company clung to the railways, the Magnetic went upon road and rail, the United Kingdom followed the road and the canals.

Besides the public wires of all these companies, there were the telegraphic arrangements of the railway companies to be dealt with. But the Act cleared the way in that respect. All wires used for railway work were to be made over *en bloc* to the railway companies for the purposes of their traffic.

It was arranged with the telegraph companies that their officers, on behalf of the Post-Office, should effect—of course, prior to the transfer—all concentrations, alterations, and new works. We apportioned the towns amongst the companies, allotting this town to the Electric Company, that to the Magnetic, another to the United Kingdom Company, and so on. Thus was responsibility defined and labour divided. Wherever a given company was paramount, the officials of the remaining companies rendered to the engineer of the former suit and service. None

clashed with any of the others. The work for the whole of Great Britain and Ireland was in this way parcelled out.

To each company were issued specifications, exactly defining in every case by a plan and instructions the work to be done. All this labour of preparation was accomplished at the Post-Office without a particle of help from the outside. Not a hitch occurred.

But before describing how we planned the postal telegraph system, to which the specifications gave effect, I would lose no time in stating that the centre of activity, the mainspring of new ideas and original methods, was the rising star of the Post-Office of those days—the resourceful and talented Frank Ives Scudamore. The magnitude and importance of his labours are known to all who were fellow-workers with him or lookers-on in the few memorable years which preceded and followed the acquisition of the telegraphs by the department.

Mr. Scudamore was a man of great administrative ability, and possessed the art of attaching to himself most men with whom he worked. When the Post-Office took me into its service in 1855, he was employed in the accounts department. There he recommended himself to the Secretary by his skill in carrying out simplifications of procedure. Afterwards he was made Receiver and Accountant-General, and at a later period an Assistant-Secretary. Finally, on the completion of the great work in which he was the foremost figure, of transferring the telegraphs

to the State, he became a C.B. and the Second Secretary.

The Post-Office has never seen a more indefatigable official, nor one who in a given space of time accomplished so much. To work all day, all the evening, all night; to go to bed for an hour or two and then arise, to labour with unabated energy throughout the ensuing day, was no uncommon thing with him. His energy knew no bounds. At the time of the transfer of the telegraphs Mr. Scudamore must have been about forty-seven years of age. A fluent writer of sound, if copious, English, and familiar with every detail of postal administration, he could compose, off-hand, minutes, reports and letters on the most complicated official questions with consummate ease. He knew by sight or name every principal official.

Backed by a strong will and unwavering confidence in his own powers, Mr. Scudamore, in the little world of the Post-Office, carried all before him. Whatever were his own ambitions and aims, it is certain he could always turn aside to do a kindness. To help the widow, console the sick, screen as far as he properly might the erring, and praise the well-doer, he was ever ready. Many kind things were written of me by his hand.

He could disarm angry men by the timely answer that softens wrath. An irate journalist, who came all the way from Belfast in 1870 to upbraid him, left his room with a smiling face, having been made well-nigh to forget the grievances he came about. 'Scudamore

was so genial,' said he, 'and as I felt so strongly that in the whirl of his engagements the one thing he never lost sight of was the interest of my paper, *how* could I possibly scold him?'

A short man, sturdily built, though not bulky, with a large mild eye and an immense head fringed with long grayish flowing hair, no beard or moustache, and spectacles ever in position, he was, once seen, not readily to be forgotten. It seemed at one time quite certain that he would rise very high in the Civil Service. Perhaps he relied too much on his own powers, and made use of others to lighten his burdens too little; possibly the grateful flattery of unstable public opinion influenced his judgment; perchance his absolute devotion to the affairs of office withdrew him from a sufficient consideration and regard for his own interests. Who shall say? Mr. Scudamore was a brilliant official whose light waned just when his luminous powers were about to shine at their fullest, and when he might have looked forward to flourish for years in prosperity and honour. He retired from the Post-Office in 1875, and took up an official position in the Turkish Postal Service at Constantinople, where, in 1884, he died.

The period of the transfer of the telegraphs was one of unexampled activity and, it may be added, exhausting application.

If Mr. Scudamore, as stated, was sometimes at work all night, the subordinates, inspired by their chief,

followed suit. It once happened that duty kept me continuously at the Central Telegraph Station from ten o'clock on one morning until five o'clock in the afternoon of the next day, and then carried me off by the Irish mail to recommence official work on the third day in College Green. Sleep, in those days, was becoming a forgotten refreshment. But in due course Nature enforced the lesson which all those have to learn who neglect her wise teaching and are heedless of her timely and kindly rebukes.

One gigantic piece of business had to be accomplished, viz., the valuation of the property about to be bought. Parliament prescribed the bases of purchase. A band of experts chosen from the office of the Receiver and Accountant-General was formed to work them out. Inspired and instructed by Mr. Scudamore and Mr. Chetwynd, they analyzed all the sources of income and expenditure as if they were accountants and auditors in one. Mr. C. V. Walker, Mr. Bartholomew, the talented and regretted Professor Fleeming Jenkin, F.R.S., and others, examined the plant, determined its state of repair, and the sufficiency, or otherwise, of expenditure in maintenance. The reports of the examiners, if at this distant date anyone cared to peruse them, would be found to be a monument of laborious and thorough investigation.

When the Bill of 1868 was passing through Parliament, it had seemed to me indispensable that the Postmaster-General should have a legal monopoly of

telegrams. But the clause to that end was not pressed. On introducing the Money Bill of 1869, however, the Chancellor of the Exchequer, Mr. Robert Lowe, made monopoly a condition of proceeding with it. Thus the Acts of 1868 and 1869 gave effect to all the chief features of my scheme of 1856, except the sixpenny rate, which did not come into operation until several years later.

In order to construct a postal telegraph system, the first step was to throw together on one enormous map all the wires, to whomsoever belonging, which were available for public use. Then were weeded out (on paper) superfluous wires and apparatus. The wires thus liberated were marked to be utilized for post-office extensions; finally, we drew in, on the map, new wires for towns still left out in the cold.

In preparing our great map of the proposed postal telegraphs, the guiding principle was an extension of the telegraph to all head post-offices; the connection of such offices with their branches and the larger village post-offices; and, lastly, the concentration in one office in each town of the apparatus and clerks of competing telegraph companies. Thus the several systems in operation were remodelled, and combined on intelligible principles with the new wires to be erected by the Post-Office.

My aim was to keep head-post-office wires distinct from sub-post-office wires, and to provide for the large towns direct, and even duplicate, circuits. In a subsequent chapter telegraphic processes will be

more fully explained; so at this point it is only necessary to remark that, to admit of a message being telegraphed from one place to another—say from London to Barnet—an insulated wire must be stretched between the two points. Such a wire, if it began in the General Post-Office in St. Martin's-le-Grand and ended at the post-office at Barnet, without being connected with apparatus at other points on the way, would be called a direct or clear circuit. If it touched at the Finchley and Whetstone post-offices, it would be an omnibus circuit.

Three of the companies had wires, it may be instanced, from London to Birmingham. Most of them were clear, but some called at towns by the way. It is a serious hindrance to the effective working of busy circuits for a connection to be made with intermediate towns. Where the number of messages warranted the arrangement, the Post-Office planned a clear circuit; where they did not, three or more towns had to be grouped on the same wire in an omnibus circuit. The London and Birmingham wires, whatever the route, were all redrawn on a separate map. The probable wants of the Birmingham office under unified management and a reduced tariff were calculated. In the result it was found that there would be wires to spare, which were then planned to be cut up in a manner shown on the map, to provide local and other circuits.

For example, one company had a wire (1) which ran, it may be assumed, from London to Birmingham,

touching at Leamington; another a wire (2) from London to Wolverhampton, touching at Birmingham; and a third a wire (3) from London to Birmingham, touching at Coventry. By dividing No. 1 at the Leamington post-office, a direct or clear circuit from London to Leamington, and a clear local circuit from Leamington to Birmingham, were at once provided—two circuits out of one wire. At Leamington a second instrument for the new local circuit was the only requirement. This division enabled messages to pass from London to Leamington and from Birmingham to Leamington at the same moment. The clerk in London and his message had not to wait until Leamington finished receiving a message from Birmingham, or *vice versa*.

In the case of No. 2, excision of the instrument at Birmingham gave a clear circuit between London and Wolverhampton, while local communication between Wolverhampton and Birmingham was restored by the erection of a new length of wire between the two last-mentioned towns.

Lastly, Coventry, by a division of No. 3 wire at that town, got a clear London wire on the one side and a local Birmingham wire on the other. All this was done without depriving Birmingham of any needful wires to London.

The subjoined diagrams illustrate the text, and also furnish another and similar example of the recasting of the circuits.

LONDON AND BIRMINGHAM.

BEFORE THE TRANSFER.					AFTER THE TRANSFER.				
		1	2	3			1	2	3
London	-	o	o	o	London	-	o	o	o
Coventry	-			o	Coventry	-			o
		|					|		o
Leamington	-	o			Leamington	-	o	o	|
Birmingham	-	o	o	o	Birmingham	-	o		o
		|	|	|			|	o	o
Wolverhampton			o		Wolverhampton			o	o

In the next example, it will be observed that out of omnibus wires clear circuits were provided between Newcastle and Darlington, Newcastle and Leeds, Newcastle and York, Newcastle and Durham, and Darlington and Leeds, at the mere cost of a new wire between Newcastle and Durham :

YORK, LEEDS, AND NEWCASTLE.

BEFORE THE TRANSFER.					AFTER THE TRANSFER.				
		3	4	5			3	4	5 6
Newcastle	-	o	o	o	Newcastle	-	o	o	o
		|	|	|			|		o
Durham	-	o	o		Durham	-			o
Darlington	-	o		o	Darlington	-	o		
Leeds	-	o	o	o	Leeds	-	o	o	o
York					York				

Clear circuits, as stated, were in the main aimed at; but, as a matter of fact, the department had to begin with a less effective system, because it was impossible to make all the changes beforehand. The wires to

be rearranged were in actual use. As soon, however, as the Post-Office was firmly established in the saddle of telegraphy, it sent me to travel over the whole United Kingdom a second, and even a third, time (so rapidly did business 'expand) to make final adjustments and shape new facilities.

In 1875, on appointment as Surveyor-General for telegraph business, my function was to overrun the country yet again. A Select Committee of the House of Commons which sat in 1876 to inquire into telegraph administration reported that—

'The Post-Office has recently attempted to remedy this defect (in organization) by appointing an officer of large telegraphic experience—Mr. Baines—as Surveyor-General of Telegraphs. . . . Organization which is essentially local in administrative detail would culminate in the Surveyor-General, whose position and duties should be much better defined than they are at present. He might be assisted by an efficient engineering officer as Inspector-General of Lines and of the mechanical arrangements in offices. . . . An electrician might also be appointed. . . . The principal reorganization which the committee recommend is that there should be no separate engineering department as a distinct branch of the telegraphic service, but that the engineering officers, etc. . . . should culminate in the Surveyor-General.'

The object in view was to amalgamate more perfectly the postal and telegraphic sides of the department. But in the result things went on very much as before. For about six years my endeavour as Surveyor-General was so to shape proposals as to combine economy with efficiency. It was needful personally to visit almost every head post-office in

the United Kingdom, and exhaustively examine the methods and the sufficiency or otherwise of the staff, and the means of communication. This, though an arduous, was an acceptable duty.

Closely associated with me under Mr. Scudamore's direction in the work of preparation for the acquisition of the telegraphs were several able men, most of whom have risen to distinction.

One of them—Mr. (afterwards Colonel) Du Plat Taylor—gave valuable help. He assisted in settling which of the then existing telegraph offices in the Metropolis should be maintained, and which abolished; where new ones ought to be opened; and, moreover, he virtually introduced what are now known as branch offices. In 1832 there were only four branches in London, and although in course of time some were added, it was not until 1870, on the introduction of postal telegraphy, that (as one result of Mr. Du Plat Taylor's efforts) the present full development was attained. He organized very thoroughly the Metropolitan corps of boy messengers, assisted in allocating the telegraph force, and actively occupied himself in planning and carrying out the structural changes necessary for adapting acquired premises to postal telegraph purposes. In this way the advent of the telegraph gave new life to the Post-Office proper.

It was a great loss to the service when Mr. Du Plat Taylor left it to fill an important and lucrative post in mercantile life. He was one of the best

officers of the Post-Office, a most valued friend and colleague, and not only an admirable civil servant, but a soldier born. He organized, and after twenty or thirty years of hard work still maintains in the highest efficiency, the regiment of Post-Office Volunteers. For services in this respect, probably, he was made a few years ago a Companion of the Bath.

As another foremost worker, the late Mr. C. H. B. Patey, C.B., speedily mastered the principles and details of telegraphy. Testimony to his merits has been borne in warm terms in various official papers and minutes. He advanced rapidly in the service. Apart from the general work of telegraphic administration, which he thoroughly grasped, his success in managing the transmission of news was remarkable.

The absorbing nature of telegraph duty withdrew Mr. Patey in a great degree from active participation in the management of the purely postal side of the department. But not altogether, for he could find time, even amongst his most pressing engagements, to identify himself with the inner life of the Post-Office, to share in its social or benevolent gatherings, and to stamp his mind on whatever official questions came before him. In fact, in the later years of his life, important branches of postal work were added to the main duty of conducting telegraph business, and in all of these he showed the insight and good judgment which made him eminent in the Post-Office. His early death in the spring of 1889 was justly lamented.

Mr. J. C. Lamb, C.M.G., who regulated questions affecting the supply and pay of the force of telegraphists and messengers, has since become an Assistant-Secretary and a Royal Commissioner, and has charge of the Telegraph Department. One night, the Bill of 1868 being before Parliament, he was called back when about to leave the office at four or five o'clock. Some urgent work had to be done, and he was chosen to do it. Mr. Lamb took up his pen at 5 p.m. and, still fresh as the typical daisy, only put it down at nine o'clock the next morning.

In the news arrangements section of the telegraph branch, Mr. S. R. French, now Postmaster-General at the Cape of Good Hope, and Mr. F. M. Hodgson, C.M.G., now Colonial Secretary on the Gold Coast, did valuable work. To omit a reference to Mr. Alan Chambrè, who was equally at home in preparing a village shop to receive the apparatus of telegraphy as in representing, single-handed, the interests of the United Kingdom at a European Conference, would be to present a very incomplete picture indeed of the busy workers of that eventful period.

So also must particular mention be made of Mr. R. W. Johnston, afterwards Postmaster of Manchester, who organized the special and racing staff, and in many important respects rendered indispensable assistance; of Mr. John Ardron, who had a variety of new and difficult functions to discharge, especially in mastering old agreements, disposing of telegraph companies' buildings and the like, and on whom large

responsibilities now devolve; and the late Mr. A. B. Cooke, who gave material help in the preparation of line plans and plans of extensions.

Yet again, Mr. H. J. Shepherd, now Postmaster of Belfast, and Mr. J. W. Hyde, Controller of the Post-Office in Edinburgh (author of an excellent work on the Post-Office), were indefatigable. Of this little band, upon whom the heat and burthen of the day fell at headquarters prior to the transfer of the telegraphs, only a few now remain together.

After festivity, the bill !

To the Electric and International Telegraph Company was paid a sum of two millions nine hundred and thirty-eight thousand eight hundred and twenty-six pounds and nine shillings. That was statutory compensation to a company whose property in 1856 stood in the market at no higher value than £566,080, plus some debentures. The Magnetic Company received £1,248,586; Reuter's Telegram Company, £726,000; the United Kingdom Company, £562,264 9s. 11d.; the Universal Private Company, £184,421 10s.; and the London Provincial Company, £60,000.

Thus, at one fell swoop went five millions and three quarters of pounds sterling of the six millions voted by Parliament, and that before the Post-Office had brought to account the cost of a single new insulator or an ounce of sulphate of copper.

Such, in its main facts, is the story of the acquisition of the telegraphs.

CHAPTER XIV.

THE DAY OF TS.

THE process of transferring the telegraphs, purchased from private owners, to the Postmaster-General is stamped on my recollection. The actual day of the transfer, when LY was relegated to the limbo of the past and the star of TS rose above the horizon, has, indeed, every cause to be memorable, as will be seen.

The purchase had been effected on January 29, 1870, but the transfer was postponed until February 5. There was no formality, no last attendance of the former proprietors, no breaking of white wands, no yielding up even of the keys of the offices. On the night of the 4th the managing directors of the companies walked out; on the morning of the 5th the officials of the Post-Office walked in.

Pressing work had kept Mr. Scudamore and myself very late at the General Post-Office on the night of the 4th—far, indeed, into the next morning. At 2.30 a.m. we paid a final visit to the Central Telegraph Station, still in the control of the staff of the Electric and International Telegraph Company,

and went to the Cannon Street Hotel for a little rest. Not anticipating for a moment what the day had in store, we leisurely breakfasted at nine o'clock, and reached the Central Station—yesterday LY under the Electric Company, and to-day TS under the Post-Office—at about ten.

In the office were concentrated the circuits of nearly all the telegraph companies. It was crammed with instruments and clerks—men and women.

On this fateful and famous 5th of February, 1870, every countenance bore an anxious look, which deepened as the day wore on to something akin to despair. A thick fog overhung the city; a drizzling rain put telegraphy at its worst. Caught by the novelty of a shilling rate, the public poured in their messages amain, some to serve a trifling purpose, many for pure fun. There occurred a deluge, a perfect tempest of telegrams. In the Metropolitan Gallery piles and piles of messages speedily accumulated. Because of the very numerous points of delivery established by the department in London, the circulation was entirely new, and, until thoroughly understood, rather complex.

For example, the delivery of Pall Mall, where two postal districts joined, and for which numerous telegrams were expected, was divided. Despatches for one end would be marked to go by pneumatic tube to WGS (West Strand Telegraph Office), and for the other end by wire to SBF (St. James's Street Branch Post-Office). Such distinctions had to be mastered by

the sorting clerks, who were necessarily new to the duty.

The slightest hitch in any arrangement, however momentary, threatened instant confusion. The very method of sorting the messages, which had been found efficacious under the old company, when fewer hands dealt with fewer forms, became impracticable, and brought about immediate congestion under the severe pressure of a threefold volume of business.

In the Provincial Galleries the principal circuits soon became blocked. There, again, the revised circulation, which it was impossible to rehearse beforehand, brought us into trouble. Messages which, according to the old circulation of the Electric Telegraph Company, went to one town for retransmission should go, by the Magnetic Company's rules, to another, and perhaps, under the United Kingdom's system, to a third. No one could from his own knowledge determine the question. A new circulation book settled the precise route for every telegram, but its pages were strange to all. The sorting clerks essayed to trace circulation by the book; but the success with which this could be done at the rate of a message a minute, when filled-up forms were tumbling in by scores, may be conjectured.

It seemed at first sight almost impossible for the system to recover itself. Everything was against the department; arrangements which were good under the smaller amount of business of the companies,

broke down under the heavier pressure of a cheapened tariff and an increased supply of news. The force fell short of requirements, working, as it did, under unexpected difficulties ; some members of it, indeed, were imperfectly trained and new to thorough discipline. Fog and wet affected the electrical currents ; the wires here and there were in bad order ; many circuits were new and untried ; many were old and overdone with work before the postal era. Perhaps more serious than all was the difficulty of dealing with the flood of news reports which poured in for transmission from the two or three newly established agencies of the press. The low charge of twopence per seventy words, fixed by the Act for the transmission of copies of a press telegram, naturally led to a multiplication of the initial message.

One such copy at twopence was equal in length to nearly three ordinary telegrams at a shilling apiece, and it was soon apparent how great was the task which the Post-Office had before it in providing for the quick transmission of news without delaying the messages of the general public.

As if twopenny telegrams on the top of the shilling tariff were not burden enough for the new department, Parliament saw fit to enact a franking privilege, although there were still in the House of Commons members who could recollect the postal franks of pre-penny-postage days and their attendant abuses. Certain railway companies, which had enjoyed the privilege of sending telegrams free under their agree-

ments with the telegraph companies, were to have the like privilege over the wires of the Post-Office. The Postmaster-General, in short, was required to transmit free to their respective destinations all messages of the railway companies in any way relating to their business.

As a matter of course, liberal use was made of this privilege. 'The railway papers, if wanted, are on my study table,' one official telegraphed home in due form under a frank, 'and,' he added, 'tell Thomas to water the geraniums.'

So, what with shilling telegrams pouring in as though the first duty of man were to telegraph to someone else, twopenny telegrams in shoals, and free railway messages besides, the burden of those February days was almost more than official endurance could support.

Due to the fact that the telegraph companies possessed but a small Metropolitan system, and that the Post-Office by the beginning of January had planned and completed a very large one, we had been able, so far as the subordinate offices in London were concerned, to rehearse to a considerable extent, for some weeks before the transfer, what would have to be done when the postal scheme came into actual operation, and to shift in many cases the companies' wires, instruments and officials into our own premises.

It had been possible, also, to provide clerks for new offices a week or two beforehand, so that they got

accustomed to the circuits before the moment came for positive action. The result was that, after the first day or two of shilling telegrams, all worked smoothly throughout the Metropolitan telegraph system, and has done so ever since. In this case to cure hitches was comparatively easy. An extra clerk or two could be sent here or there by cab in an hour; an extra wire could be run in a day or so. But as regards the provinces the matter was wholly different.

Costly and laborious efforts were needed in the way of repairs and reinsurance—processes which in themselves, by the line faults they temporarily brought about, added for a time to the embarrassments of the department. To run a new wire meant, in most cases, the distribution of stores along, perhaps, a hundred miles of railway or road, and the arming and insulation of 3,000 posts by gangs already overdone with other urgent works.

However, by dint of untiring application on the part of all concerned, chiefly the Engineer-in-chief, the Assistant-Engineer, and the divisional engineers—animated and encouraged, truth to say, by the unflagging energy of Mr. Scudamore—light began to break on this gloomy period. All concerned worked literally night and day.

What the officers of the telegraph companies thought of the postal officials who came among them is not known—new-comers who altered the circulation, changed the apparatus, and acted as though to

the manner born. What strange impressions were produced on the chief executive Metropolitan officer of modern telegraphy, Mr. H. C. Fischer, and on Messrs. Edward May and Thomas Barlow, his immediate lieutenants, can only be conjectured. And yet how kind, how cordial, was their attitude! how exquisite the tact displayed under peculiar and trying circumstances!

Whatever might be the help which the officials from the Post-Office could give in general management, this at least was clear: the burden of routine at the Central Office fell on the Controller and his assistants. How did they find time to consider and dispose of the mass of manuscript which of necessity poured in upon them? Where, indeed, was the house-room to work in? Every corner was crammed with apparatus. Reports, explanations, complaints, appointments, charges, salaries, wages, discipline, proposals—the sheets of foolscap which these matters represented at the Central Station alone would have covered Hyde Park.

Messrs. May and Barlow retired to a glazed enclosure in the instrument-room about the size of the table at which this page is written, and there, stockaded with memoranda, and entrenched behind diaries, manfully fought throughout the fray. And as for the ubiquitous Controller, where did he find resting-place for the sole of his foot, or quiet corner for the unceasing pen? How did he contrive—eclipsing the famous bird of Sir Boyle Roche—not

only to be in two places at once, but to fulfil a dozen different functions at the same moment?—now mourning over the delay to GW; now penning the despatch of sagacity; now casting the eye of authority over the Metropolitan Gallery, or rearranging the duties of the staff; and now at provincial circuits making bricks, not always with straw of the best quality.

One mirthful incident, at any rate, relieved the strain. If there was an edifice of which the Electric Company's officials were proud, it was the gigantic desk or pulpit in the chief instrument-gallery wherein the matron was installed, and from whence, like Lars Porsena in the ivory car, she surveyed the legion, mainly composed of young women, at work below.

As, at eleven o'clock one night, perplexed to find space for a new sorting-table, we cast eyes on this stately pile, its doom was swiftly fixed. Was Mr. Scudamore a man to be baulked by a few planks? Had my youth been given up to carpentering in a potting-shed at home for nothing? Were not the doughty Cooke, with his pleasant ways, the sprightly Haines, and the ingenious and many-sided Chambrè, all available? In a twinkling, by battering-ram and strengthful wrench, down went the mighty desk; and in the morning, when the valued matron of the day came serenely to ascend her accustomed perch, that abiding-place was not, and smiling damsels, seated at a table, nimbly sorted telegrams on the site.

The telegraph branch had so far advanced in the

path of reform and order, that by the beginning of May, the weather improving, the wires being in better order, and the staff all over the country having shaken down into their places, difficulties began to diminish ; and although there was, as subsequent experience showed, an immense deal to accomplish, yet for all concerned the troubled waters had become comparatively still and clear.

In the opinion of the chief, it was then feasible, as it had always been expedient, to send someone to Ireland to reorganize the telegraphs on principles already accepted, and to blend them into harmony with the English system. Eventually it was my lot to be sent.

‘Under these circumstances,’ wrote Mr. Scudamore on May 10, 1870, ‘I propose, with your lordship’s concurrence, to send Mr. Baines . . . and to instruct him and Mr. Sanger to prepare a report for your lordship’s consideration of the arrangements which it will be necessary to make in Ireland with a view to bring the system there into complete harmony with that which we have been able to establish in Great Britain.’ The Postmaster-General (Lord Hartington) sanctioned the proposal, and no time was lost in giving effect to it.

The first object was to clear of delay in the transmission of messages the wires from Dublin to Belfast and Cork, and to plan a new five-wire cable from Holyhead to Howth. The late Mr. Sanger and his staff threw such energy into the matter that very

soon messages went to and from Belfast and Cork almost instantaneously. Before long, they went swiftly to and from London.

The so-called commercial management was transferred to the surveyors and the postal department proper; the old telegraph system was recast, extensions were made to every town and considerable village, delays all over the island gradually disappeared, and the revenue rapidly increased. In short, after a period of pretty close application, the Irish telegraphs were brought into due order.

The Post-Office contrived to secure in Ireland what in Great Britain the Act of 1868 unhappily cancelled—the agreements which regulated the use of the railways for telegraphic purposes. The Post-Office maintains its own wires in Ireland entirely. In Great Britain it does so for the most part only on the roads and canals.

The work in Ireland done, next came to my hands a thorough revision of the whole of the system in Great Britain, in order to adapt it still more closely to the wants of the public; and the Post-Office telegraphs of the United Kingdom became, and it is believed are still, as perfect as any other system of telegraphs in the world.

To this end, Mr. W. H. Preece, C.B. (now the Engineer-in-chief), the late Mr. T. H. Sanger, in Ireland, and the late Mr. Edward Graves, in England, also at sundry times the late Messrs. Shaw, Walsh, and Tansley, and Captain (now General) Webber, R.E.,

in command of the Telegraph Company of the Royal Engineers, actively contributed. New wants were met, and the original scheme of postal wires, which of necessity left much for subsequent adjustment, was made harmonious in all its parts, and simple and sufficient.

To expedite matters in conducting paper-work, recourse for the first time in postal experience was had to the services of shorthand writers in writing from dictation letters, minutes, and instructions. Within the office were several skilful professors of the stenographic art. During six months, from the date of the transfer, no fewer than seventeen thousand cases were so 'treated,' as the phrase went. The notes transcribed covered sixteen thousand sheets of foolscap (written half-margin, it is true), and contained 981,140 words. Messrs. Hyde, Tapp, Denman, and others—how you wrote like lightning, with tireless pen, throughout the sleepless nights, and sometimes, alas ! the peaceful sunny Sundays !

What was an ordinary week's work of the telegraph branch of the Secretary's office? Even during a week in November, 1870, when the stress of installation was over, an account showed that 5,578 cases had been dealt with, and close on a thousand foolscap letters written.

What else? In the twelvemonth from October, 1869 (*i.e.*, before), to October, 1870 (*i.e.*, after), the Transfer, there were bought and fixed in position 8,382 tons—equal to about fifteen thousand miles—of

iron-wire, nearly two thousand miles of gutta-percha-covered copper-wire, about one hundred thousand poles, and a million of other fittings. Moreover, 3,500 telegraph instruments were obtained, and 15,000 batteries to work them with. Joint stock companies were valued and paid out; leased buildings were taken over and occupied. The Post-Office engaged and trained about 2,400 new telegraphists and temporary assistants, and appointed more than 1,600 additional telegraph messengers. Of course, these labours were spread over the whole country, and not limited to the service of the Central Telegraph Station, though they were incidental to the day of TS.

There was not much idle time in the telegraph branch of the Secretary's office, in the Receiver and Accountant-General's office, under the capable and untiring Mr. Chetwynd, or in the Solicitor's office, under the adroit and sagacious Mr. Ashurst.

At the central station of the Electric Company—crammed as it was with apparatus and staff—we held on until the new Post-Office buildings in St. Martin's-le-Grand were ready. This was in January, 1874. A year or so earlier Colonel Du Plat Taylor, C.B., went with me down to the Office of Works, in Whitehall, with the plans of the new building, which had been laid out for postal purposes only; and in a twinkling, Mr. Williams guiding, the top floor was swept clear of obstructions, and there was formed on paper a magnificent central gallery with four wings. This flat two years later became the new TS.

It remains to this day as then planned, except that additional storeys have since been built over the wings, and a supplementary building for dining and cloak rooms has also been provided.

Shifting over the wires and apparatus from the old central station to the new one was an intricate and delicate work. It was swiftly effected without the slightest hitch, and without anyone but the actual operators in London being aware of the change. The chief actors, to whose careful foresight and resource the credit of this feat is due, were the Controller of TS, Mr. Fischer, and the Superintending Engineer for London, Mr. H. Eaton. If any part was mine, it was a lesser one.

The result was a triumph of ingenuity, and yet, as most great measures are, the work was arranged on a perfectly simple basis. First of all, the new galleries were fitted up (except as regards instruments on the table, a few spare sets only being *in situ*), an accurate plan was made of the tables, and the position of each set of apparatus was definitely settled. Let us as an instance take the case of the southern terminus of a wire, No. 45, from Liverpool to London (Telegraph Street), which had to be shifted to St. Martin's-le-Grand.

Late at night, on a local wire set up for the purpose, Mr. Eaton, at Telegraph Street, said to Mr. Fischer, at the Post-Office: 'At 11 p.m. we put through 45 Liverpool.' At 10.59 $\frac{3}{4}$ Telegraph Street said to Liverpool, on circuit No. 45: 'Wait'; and at

eleven o'clock all that the Post-Office at St. Martin's-le-Grand had to do was to call Liverpool on the new instrument fixed at the new end of No. 45, and say, 'G'—meaning 'Go on'—and Liverpool went on with the messages, all unconscious that he was telegraphing to a new point a mile from the old one.

In an agreed order each telegraph clerk on duty came over to the Post-Office with a liberated instrument under his arm, which was instantly joined to a wire waiting to be put through, and to battery connections already provided, and so, by two or three o'clock in the morning, the Post-Office—*i.e.*, the new TS—was fully equipped; the last instrument was out of the old TS, the last gas-jet turned off, and the thronged, humming, tapping, clattering, and, it must be added, grimy halls were left to silence, darkness, and the astonished mice. The new day of TS presented very different conditions from those of the old one.

Shortly before the transfer of the telegraphs occurred, the average payment made by the sender of a telegram to any part of the United Kingdom was estimated to be 1s. 11d. The actual produce of a telegram is now 7·7d.—say 7¾d. The public, in short, send 70 millions of inland telegrams at 7¾d., in place of 6 millions at 1s. 11d. Of course, there is another side to this picture. State telegraphy is not conducted at a net profit. But it gives to the public cheap, extensive, swift, and accurate service; and in

the transmission of news for the press has done wonders for the general benefit.

The millstone around the neck of the telegraph branch is the interest payable on eleven millions of capital outlay, equal at (say) 3 per cent. to a charge of £330,000 a year. Under the lighter burden of little more than £30,000 a year which the plan of 1856 would have had to bear, the revenue from the outset, plus the money value of the beneficial privileges which were lost at the transfer, would in all probability have sufficed to secure at any rate equilibrium between the two sides of the telegraph balance-sheet. However, regrets are in vain.

Still, it may be contended that the country has had a good return, in the great benefits conferred on all classes by a telegraph service of unequalled completeness and efficiency, for even the stupendous outlay of eleven millions sterling. What is most to be regretted is that the free and full development of which the telegraph and telephone are yet capable should be hindered, as it can hardly fail to be, by the financial Old Man of the Sea who sits on the shoulders of the yet youthful Sinbad of inland telegraphy.

After glowing millions, the light of humble thousands is less dazzling. Yet the latter in a sense are more interesting than the former. The millions of messages with cheap telegraphy and extended facilities were bound to come ; but the need of the Metropolis for a local exchange of telegrams between residents under a sixpenny or even a shilling tariff was an unknown

quantity. We planned a complete and effective network of Metropolitan telegraphs. At first the purely local messages from one part of London to another were very few. Then the public found out that postal telegrams went quickly and were not very dear. Soon a daily total was realized of 500 messages; then the total rose to a thousand, and in fifteen years' time to an average of 6,500 a day. This alone brought in a revenue, at 1s. 2d. a message, of about £120,000 a year, and that, too, of the least expensive kind to collect. More than half was certainly net profit.

Under the sixpenny rate Metropolitan messages have increased in number even more rapidly than messages for and from the provinces. They rose at a bound from 6,500 to 10,000, and now during the Parliamentary session perhaps reach an average of twenty thousand daily. Twenty thousand telegrams at 7·7d. each represent a vastly larger gross receipt than 6,000 or 7,000 at 1s. 2d. So, while the public has gained in pocket and convenience, the Exchequer, at all events as regards the sixpenny local messages, has not suffered, the distances traversed being short and the cost of transmission low.

On the day before the royal wedding, in July, 1893, the total of local Metropolitan messages reached nearly 30,000, though on a previous occasion—a day of dense fog (December 24, 1891)—the amazing number of 36,272 local messages had been transmitted. This, it must be remembered, was merely the number of telegrams from one part of London

to another, all passing through TS. Very few persons could get about at all because of the almost impenetrable darkness, so that those who were expected to move had to telegraph that they were immovable.

The success of the Metropolitan system of telegraphy cannot but be a source of deep interest and unalloyed pleasure to those concerned in planning it. In January, 1870, many a night was spent in White-chapel, at Islington, and in Euston Square, in Vere Street, and at Buckingham Gate, trying the circuits, adjusting, rehearsing and altering, so as to make all perfect against the day when the Post-Office should be called on to show what it could do in the way of Metropolitan telegraphy; and twenty thousand ears of corn growing where few or none grew before are no mean reward of official exertions.

As a matter of course, close attention to the swift transmission and delivery of local telegrams in London equally benefited the collection and delivery therein of provincial telegrams, so that two birds were hatched from the same egg.

Amongst the substantial advantages accruing from the acquisition of the telegraphs by the State is swifter transmission. Subjoined is a rough-and-ready table of comparisons. No doubt in 1866 the most striking examples of delay were taken; but, on the other hand, the figures of 1893 by no means show the normal swiftness of telegraphy, especially at that well-managed office—Southampton.

STATEMENT SHOWING TIME OCCUPIED IN TRANSMISSION OF A
TELEGRAM BETWEEN VARIOUS OFFICES IN 1866 AND 1893
RESPECTIVELY.

		Time occupied in transmission.	
From	To	In 1866.	In 1893.
London ...	Bournemouth	2 hrs.	10 mins.
" ...	Brighton	1 hr. 15 mins.	17 "
" ...	Downham ...	2 hrs.	24 "
" ...	Sevenoaks ...	2 hrs. 30 mins.	10 "
" ...	Southampton	3 " 45 "	23 "
" ...	Staplehurst ...	3 " 15 "	15 "
" ...	Uxbridge	2 " 15 "	12 "
Derby	Atherstone ...	1 " 30 "	12 "
			(From Leicester)
Manchester	Bolton	2 " 15 "	5 mins.
Liverpool...	Preston Brook	3 " 15 "	25 "

Mr. Preece has ascertained that on the morning of January 20, 1894, the mean time of transit of messages arriving in Newcastle-on-Tyne from all parts of the United Kingdom was 7·8 minutes. A similar examination of messages at Glasgow a few days before had resulted in a mean of 8·7 minutes. From the very first the efforts of the Post-Office to attain a high standard of swift transmission have been unrelaxing.

With the transfer of the telegraphs to the Post-Office came to an end a quaint and profitable practice. For many years it had been the habit of the department, on the occasion of a General Election, to collect tidings of the progress and result of the polls, and after supplying particulars to the Government of the day, to vend the intelligence to the clubs, newspapers

and news-agents. There being a postmaster in every town, we had necessarily an agent at every polling-place. So our organization was complete.

A certain number of clerks (eight or ten) of the Secretary's office were from time to time selected. They were allowed to make their own arrangements, and on the usual condition of supplying the Postmaster-General and Chiefs of the Government with reports, and bearing all costs, they had the benefit of any resulting profits.

The work was spread over a fortnight or three weeks—there was a good deal of preparation, and as telegrams were always pouring in, we had, in turn, to sit up half or all the night. I was lucky enough to have a share in the reporting of the General Election of 1868-9, and netted a good round sum. That was the last occasion of the Post-Office acting as the collector and vendor of news.

CHAPTER XV.

THE FIRST LINE OF DEFENCE.

' Wires down to the north. Give notice of delay to all telegraph offices ; accept messages for Scotland and Ireland only at senders' risk.'

The reader of this official bulletin, which may be issued from St. Martin's-le-Grand at any season of the year, but especially in the winter months, or during the prevalence of the equinoctial gales, can take it for granted that a great wind-storm, travelling from the south-west to the north-east at the rate of 60 or 80 miles an hour, has cast, in sudden gusts and long, sustained blasts, a score or two of elms or other great trees across the main lines of telegraph communication.

Such a storm has repeatedly smitten wires crossed by a line drawn from Weymouth, through Salisbury, Swindon and Oxford, to Northampton, Peterborough and the Wash, flinging trees upon the road lines and strewing the railways and highways with masses of tangled wire and heavily-armed timber. Worse still

happens when a snowstorm combines with a gale, and thaw and frost rapidly alternate.

Then does the engineering department, rising undismayed, bring into play the First Line of Defence, and address itself with vigour and method to the reparation of damages. The postal telegraph system is carried partly along the highroads, partly on the railways. Railway appliances help swiftly to clear the wreck from the latter, but work on the former is slower and more laborious.

For the maintenance of postal wires on their property, the railway companies in Great Britain are responsible, receiving due payment; on the roads, all the work is constructed and maintained by the officers of the department. At the end of March, 1893, the post-office telegraphs, public and private, covered a total distance of 33,750 miles. In easy figures, perhaps more than 18,000 miles are on roads, and less than 15,000 on railways. This is mileage of line. The wires, if run out straight, would go nine times round the world—they count up to 209,046 miles. Mr. Preece looks after 139,000 miles; the companies, the rest.

The engineering branch is distinct from the surveying branch. It deals with all technical questions, and has nothing to do with the internal management of telegraph offices. The unit of organization is the lineman, who has to look after a certain length of road. Over him is an engineer in charge of a section composed of several linesmen's lengths. Next in order is

the Superintending Engineer, who is responsible for a large district comprising several sections, and whose headquarters are to be found dotted about the country—at Manchester, Cardiff, Birmingham, Leeds, Edinburgh, Dublin, and so on. Finally, the Engineer-in-chief watches over all.

Any failure in the action of a wire during the day-time is, of course, known instantaneously at two telegraph offices at least. Each sends word directly, by such means as are available, to the engineering officer and the lineman locally responsible; the latter starting at once in search of the fault, and the former taking any special steps he may deem necessary. If a postal wire fails on a railway, the telegraph superintendent in the service of the railway company arranges to repair the fault; if it is a road wire that fails, then the postal servant sets to work.

So much for an ordinary interruption affecting one or two wires only. But special provision has to be made for the great storms which result in more or less serious damage. To provide for these, general instructions are held by the whole of the staff of a given district detailing the steps to be taken by each individual. Every lineman starts with such assistance as he can collect in a definite and known direction. The sectional engineers muster their construction gangs and send them over the routes most heavily hit. The Superintending Engineer is informed where help is most urgently wanted: he collects men from portions of his district which have escaped injury, and

despatches them to the scene of action. Then he acquaints the Engineer-in-chief with the main facts and appeals for assistance if necessary. Thus, by perfect organization, the whole resources of the department are automatically brought into play and communication is rapidly restored.

The main centres for the manufacture and storage of telegraph plant are in London—at Mount Pleasant and Holloway, the factory at Holloway, however, confining itself to work on telegraph instruments. Poles are stored chiefly in the provinces, near the parts where they are likely to be wanted, but minor store-houses scattered about the United Kingdom keep a small supply to meet emergencies.

An annual expenditure of a quarter of a million of pounds sterling has to be incurred in order to keep these establishments well stocked with needful reserves of various stores. Poles, of course, are a chief requirement, and £45,000 is soon spent in laying up a sufficient supply. Even to fit them for use—with arms and insulators to support the wires they carry—costs £15,000 more, while a store of wire enough for a year's consumption eats up £55,000.

A few miles of submarine cable have to be available at a moment's notice, and they involve an outlay of £33,000; while instrument stores absorb £56,000, and battery and other stores and tools account for £30,000 more. Hence, storekeeping for Post-Office telegraphs is rather an expensive necessity.

With these reserves to draw upon, a capable chief, good organization, and a willing staff, the engineers set right the most extensive interruptions in an incredibly short space of time.

Does not my mind's eye call up a memorable episode? Once, many years ago, the first line of defence had its mettle tested in the middle of a winter's night. A snowstorm, followed by frost and wind, stopped the postal road-line telegraph between two great midland towns—A and Z. The head-engineer of the district was tripping at A the light fantastic toe, on an occasion of festivity at a friend's house, when the tidings reached him.

Equipped as he was, though with fur-lined coat over his dress-clothes and jack-boots in lieu of elastic pumps, he sallied forth, collected from their own snug beds a score or so of his merrie men, then got a couple of huge well-horsed excursion break-vans, filled them up with tools and wire, and as midnight sounded from the steeple of St. Philip's started forth towards Z.

Midway, a mile of shattered posts and tangled wire, some in the roadway, some hurled into the ditches, and all encrusted with frozen snow, formed a scene which, in the murky light of a clouded moon, was less cheering than picturesque.

The captain, taking in the situation with a glance, bade his crew cut away all the wires; he jury-rigged or reset the broken poles, ran out his new wire, spliced on serviceable lengths of the tangled skein, and by

daybreak all fifteen wires were 'through.' Then came the choicest feature of this episode.

Strictly speaking, rehabilitation of the line lay with the sub-engineer at Z. But he, good man, was sound asleep with his children around him, and knew nothing of the breakdown. At 9 a.m. daily it was his duty to report to his chief at A how all the circuits were working. So at nine o'clock he duly telegraphed as follows: 'Interruptions between A and Z during night. Wires all right now.'

If construction and maintenance centralize in the Engineer-in-chief, he is not without a personal staff to share his labour, though not his responsibility. An Assistant Engineer-in-chief (Mr. J. Hookey) and a Principal Technical Officer (Mr. J. Gavey) stand by Mr. Preece, who is both Engineer and Electrician, to aid him in all his doings. A Submarine Superintendent and a Superintendent of Electric Lighting, assisted by twenty-six officers of several grades, render help in various degrees. Altogether, 995 officers and men form the established staff, and they are aided by a fluctuating force, which varies from 1,500 to 2,000 men, according to requirements. These, at a cost of £231,010, uphold the telegraph system. Not that even this large sum covers the whole cost of maintaining postal telegraphs; £76,000 has to be paid to railway companies for similar work, the bill for travelling is £27,000, while materials for current use figure for £124,000; in all, the vote required for maintenance is £515,940.

These figures afford some idea of the ramifications of the postal telegraph system, and the cost of keeping it up, also of the weighty responsibility which the Post-Office undertook and still bears with a light heart.

Even with all this costly and extensive machinery of control at his disposal, Mr. Preece, my impression is, finds personal supervision indispensable to the full efficiency of the first line of defence.

Such was my own experience, in other fields, as Surveyor-General for telegraph business. A day—an hour even—in the telegraph office itself was worth a ream of correspondence. The trained eye of the superior, brought to bear now and then in a general way, sees at a glance the exact degree of efficiency prevailing, and includes at a sweep many things which perhaps escape the notice of the resident overlooker.

It may not be the case that when a line of telegraph is blown down or a submarine cable snaps that the Engineer-in-chief has to take the field (or the sea, as the case may be) in person. But he will certainly not allow a new trunk line to be constructed nor an old one reinstated without inspecting some portions of the work and satisfying himself of its quality.

Of course, the higher efforts of the Engineer-in-chief lie in the vocation of Electrician.

When the Post-Office took over the telegraphs, it appeared to me that it ought to show an early appreciation of the importance of technical training by

forming a corps of carefully selected cadets, who should go through prescribed scientific and practical courses to fit them for their profession. But, although the plan was actually put in operation, adverse circumstances prevented an exhaustive trial, and it collapsed. So, for many years, knowledge had, more or less, to be gained by the new intrant by rule of thumb. Even now, a settled recognition in the department of chemistry, metallurgy, and the kindred sciences would be to the public advantage. Much is left to individual effort, the thirst for improvement, and the hope of promotion.

The accustomed phrase of 'leaps and bounds' may be applied to the progress of education in electrical science during the past twenty years. Outside influences are largely to be thanked for this result. The Society of Electrical Engineers, by its meetings, discussions, and printed papers, has given a great impulse to an educated study of electricity; and deep-sea cable enterprise, and especially the extension of electric lighting, have provided motives for technical training.

It speaks volumes for the *esprit de corps* of the Post-Office that, although most of the original inventions of modern date—for instance, the Duplex, the Sounder, the Multiplex, the Telephone, etc., have come from without, all, or nearly all, important improvements of telegraphic apparatus have come from within; no official person, however, having the potent incentive of assured professional gain.

That telegraphy has made enormous strides during the last forty years is due greatly to the discovery of the gum known as gutta-percha, valuable as an insulating material. Caoutchouc, or indiarubber, is, it is true, an excellent dielectric; but the supply is scanty, the gum is dear, and it cannot be applied to copper wire in a homogeneous mass, but must be laid on in spiral strips, which are not easy to weld into perfect cohesion and render water-tight. Yet, for all that, its popularity, which had waned, is reviving, and for wires laid underground, indiarubber is again in use. Dr. Montgomerie, a surgeon in the East India Company's service, sent specimens of gutta-percha to the Society of Arts in London in 1842, and received in return the society's gold medal.

Ever since the recognition of the value of the gum in Europe, the destruction of *Dichopsis gutta*—a tree which towers to 140 feet, and measures as much as 20 feet in girth high up the trunk—has gone forward with alarming rapidity. It is calculated that, between 1854 and 1875, the exports of Sarawak alone represent the destruction of three millions of trees. Add to this the consumption of nineteen subsequent years, not in Borneo alone, but in the island of Sumatra and in the southern portions of the Malayan Peninsula also, and some idea will be gained of the havoc wrought in the tropical forest by the European demand for gutta-percha. The Rajah of Sarawak, Sir Charles Brooke, no doubt will take care of British Borneo and its timber lands.

The process of gum-getting is simple enough—it is, to kill the goose which lays the golden eggs. In the moist hot climates to be found between 4° of north and 3° south latitude, and 100° to 120° of east longitude, *Dichopsis* is plentiful. It is a soft-wooded tree, fibrous and spongy, yielding juice of a grayish tinge. The natives cut it down, top and lop, partly debark, hammer with mallets, and compel it to yield up its juice. This they collect in bamboos, or perhaps, as it stiffens into a paste and hardens into a reddish-brown mass, wrap up in leaves, and either then, or after a profitable admixture of sago, flour, sawdust, clay, and stones, carry down to market. At least, it was so in the old days. The hapless telegraph companies of the early fifties no doubt acquired their stocks at this stage ; at any rate, before the elaborate and expensive process of purifying the gum was thoroughly understood. Thus, the first experiences of the Electric Telegraph Company with gutta-percha on a large scale were rather disastrous. To avoid the effects of adverse weather on badly insulated and indifferently jointed overhead wires, they went to great expense in laying underground copper wires coated with gutta-percha, from London to Liverpool, Manchester, and Leeds.

The experiment failed. At first the insulation of the wires was too good ; they retained, as in the case of the Dover and Calais wire, charges of electricity after the manner of a Leyden jar, instead of parting with them instantly, as well-behaved wires ought to do. At length they became too bad to be worked at

all, as imperfect joints soon permitted leakage, and impurity of preparation led the gum gradually to perish altogether.

The Magnetic Company had no better fortune in an underground telegraph from London to Dover, which worked in connection with the Submarine Telegraph Company's wires to the Continent.

The Electric Telegraph Company looked for aid from civil engineers.

Messrs. Edwin and Latimer Clark came from the erection of the Britannia Tubular Bridge to the rescue, and revised the methods all round. They introduced improvements in erecting, and especially in insulating, open wires, did away with winding-posts, obtained a better quality of wire, soldered all joints, overhauled the telegraphic apparatus, and abolished underground work, except in towns. Mr. Cromwell F. Varley devised a new form of insulator, known perhaps to this day as a 'brown Varley,' and he hit on many better forms of commutator and relay. Dividends had to be earned for expectant shareholders, and these thoughtful revisions soon poured showers of gold, in the shape of enlarged profits, upon the gratified proprietors.

Gutta-percha for a time was under a cloud. Soon better methods of preparation were adopted. Pure gum came into the market at enhanced prices. Its reputation revived. Almost the first act of the Post-Office, in entering on telegraphy, was to lay down a cluster of gutta-percha-covered wires under the highroad

from Liverpool to Manchester. Aërial lines of telegraph, however, still held their own as easier to manage and cheaper to erect, if not to maintain. But whether gutta-percha or indiarubber be employed as an insulating material, the use of covered wires must before long become general; inasmuch as security of inland communication will never be attained until main trunk lines shall have been laid, like water-pipes, under ground, and the time is probably ripe for a renewal in this direction of further experiments on a large scale.

That done, the vicissitudes of weather will have but little effect on the postal telegraph system in the great centres of population and commerce, and its first line of defence will be impregnable.

Meanwhile, the locality of 'faults' on the wires has to be sought out by the process known as testing.

Once, the perplexing nature of a 'fault' on a Kentish circuit defied the most painstaking officials. Every now and then—in fact, almost every day, and even two or three times a day—the wire 'broke down'—that is to say, refused to transmit the electric current—while at other times the most delicate tests failed to show anything amiss. By degrees the fault was localized at a certain bridge over a stream crossed by a small branch railway. Still, the wire was sound enough when tested from either abutment.

Finally the inspector in charge, believing in malefic influence, hid himself behind a haystack and, biding his time, awaited the offender. No one appeared, but

soon a train whisked by. Half an hour later a mounted messenger galloped up from the telegraph office with the tidings of 'Fault on.'

Here was a mystery. Suddenly a ray of light illumined the darkness.

The bridge was of wood built upon piles, and was not very solid. Now and then a passing train, heavier or speedier than usual, gave it a jerk; each jerk detached a coupling-wire from the telegraph line, which after a time jerked back again of its own accord into position.

The testing of wires plays an important part in the maintenance of Post-Office telegraphs. Mr. Culley, when Engineer-in-chief, could hardly attach too much importance to the practice of applying regular and frequent tests, irrespective of the existence of known faults. It would trench too much on the technical field to describe the process closely. It is seen in perfection when applied to submarine cables, but even on aerial lines the rapidity with which the locality of an interruption is determined strikes the observer as remarkable.

All the wires throughout the country are divided into convenient sections. Each morning an electrical current of known strength is sent by A, wire by wire, and B reads off the amount of deflection on a galvanometer. The number of degrees of deflection which the galvanometer should indicate if the wire were perfect is known, and the difference between the theoretical standard of full efficiency and the actual

reading shows the condition of the wire. Positive faults are quickly localized by simple modifications of this system.

An experienced testing clerk can always make a shrewd guess at the distance of an actual breakage—provided that the broken wire does not touch the earth, or a conductor to the earth—by the strength or weakness of the vibration of the needle of the galvanometer, which thus gives a rough and ready indication of the lengths it is expedient to test first.

CHAPTER XVI.

BEHIND THE SCENES.

IN the telegraph system of the British Isles, and in those of other countries too, simplicity and complication are strangely blent. The electric telegraph even in its most elementary form, is a magical contrivance, the true fundamental mystery of which has yet to be made plain.

A wire stretched from London to Aberdeen is just as good for telegraphic (not telephone) purposes as a double wire; that is, one taken from London to Aberdeen, and doubled back again from Aberdeen to London for the sake of forming a telegraphic loop or circuit—nay, for general purposes it is perhaps even better. For the fact is established that only one-half of the circuit need be of wire, provided that the extremities are dipped in the earth. In short, one end of the wire may be soldered on to the water-pipe of the Aberdeen Post-Office, and so be ‘put to earth’; the other, twisted into a mass of coke and buried in a damp spot in St. Martin’s-le-Grand,

or even soldered on to the pneumatic tubes, will make the circuit complete.

The telegraph from certain points of view is simplicity itself. If the neophyte or the expert of long experience smartly tap twice in the Birmingham Post-Office on a little spring, or so-called 'key,' an operator at Glasgow, 300 miles off, shall forthwith write down on his message-form the pronoun 'I.'

Again, a message sent by Morse apparatus through one telegraphic wire may, by means of a telephone attached to another wire, be read off, the two wires being, perhaps, parallel only for a mile or two, and then branching in opposite directions. This is induction. What more perplexing?

The curious shall be handed a paper slip at TS, a narrow ribbon some yards in length, and requested to put the proper end between the two little rollers of a transmitter, and move a slight token of brass. Lo! a great statesman's speech begins to flow into a wire to the North at the rate of three hundred words a minute; and as the spectator watches the so-called tape run its swift course, nimble scribes 300, 400, or 500 miles distant—at Newcastle, Edinburgh and Glasgow, and perhaps at Aberdeen—are simultaneously writing out at length the ripe utterances of a well-balanced mind.

How is it all done? Let us lift the curtain, go behind the scenes, and see for ourselves.

At the outset the reader may require to have the electric telegraph described to him. Mr. Edward B.

Bright, in his able work on the telegraph published by Walton in 1867, covered 269 pages, and there would have to be added at least another hundred pages to bring the book up to date. Nevertheless, some interesting details may perhaps be given in a few paragraphs.

A slip of copper and a slip of zinc, plunged to three-fourths of their length in a tumbler of acidulated water, are the elements of a minute but actual galvanic battery or cell. A loop of wire a foot long (or a mile), connecting the upper edges of the slips, would complete the electric circuit, and put the battery in action.

As soon as this metallic connection is made and the circuit formed, electrical action is 'set up'—*i.e.*, electricity flows through the fluid of the cell, always in the same direction, from one metal to the other, and through the connecting loop back to its starting-point. There is the fundamental principle, the actuating agency of all electric telegraphs.

The chief forms of electric telegraph are the Needle, the Morse, the Inkwriter, the Sounder, the Bell, the 'Hughes,' the 'Wheatstone' (in two forms), the Telephone. The Morse, the Inkwriter, the Sounder, and one form of the Wheatstone have so much in common that they may be classed together, in which case the list whittles down to six: the Needle, the Morse and its satellites, the Bell, Hughes, A B C (the other form of Wheatstone apparatus) and the Telephone.

We might stretch out the loop of our battery-cell so as to reach from London to Brighton. We shall not, however, want two wires, as the earth will do duty for one-half of the circuit, so one wire will suffice. The Brighton end shall be joined, for a special reason, to a hundred yards of very fine copper wire covered with silk, carried to the earth. In London one plate of the cell shall be connected with the line wire, the other with the earth. That completes our circuit.

We now take a bit of soft iron as long and as thick as one's thumb, and coil tightly around it the fine copper wire, so forming a bobbin. All this time the electricity from the two little plates of the battery-cell in London is whirling around the bobbin and its iron core. The core has now become magnetic, and will attract iron and attract or repel another magnet. Disconnected, the electricity ceases to flow through the wire, and the magnetism as instantly ceases; reconnected, it returns. If this be repeated once in a minute, a hundred times, a thousand times in a minute, as often will the core acquire magnetism or part with it. This is the basis of the Morse, the Sounder, the Inkwriter, the Bell, the Wheatstone transmitter and receiver, and the Hughes type-printing telegraphs.

Unwind the bobbin; cast away the core. Now borrow a mariner's compass in a square box. Around its four sides again wind from right to left the fine silk-covered copper wire through which the current

from our galvanic battery in London is still flowing. The needle which, when borrowed, pointed due north and south, now points at right angles—the north end to the east. Rewind the wire, this time from left to right; now the needle reverses its direction, the north end pointing to the west. Here is the needle telegraph invented by Cooke and Wheatstone.

All the rest of the mechanism in each form of instrument merely provides the means of applying, reversing, or cutting off the electricity with ease and precision, or of turning to account a magnetized core or the movement of a magnetized needle hung vertically.

Put the core back again in its bobbin or coil of tightly-wound, fine, silk-covered copper-wire, and in front of it fix a round disc of thin iron about the size of a crown piece. If currents of electricity be sent through the coil of wire a hundred times a second, the disc will emit a musical note; if a thousand times a second, it will whistle. If the currents be made to vary in frequency and strength, as do the sounds of the human voice, it will reproduce actual speech. This is the telephone.

The phonograph I have not referred to, because it has no connection with the telegraph or the telephone. It is a mechanical arrangement for recording sounds and reproducing them when wanted. But the phonopore must not be passed over, if for no other reason than that it is another instance of the almost limitless

ways in which electricity can be usefully applied to telegraphic purposes.

Technically described, it is an instrument which enables additional communication to be maintained on wires already occupied by 'Morse' or 'Needle' apparatus. The phonopore 'transmitter' causes very rapid oscillatory currents to pass to the line, and these are superimposed upon the semi-permanent currents of the ordinary telegraph. The receiving relay is a very sensitive one, and is arranged in a condenser circuit, so that the permanent currents used in the ordinary working do not affect it; but the rapidly moving currents of its own transmitter set up a movement which, by means of a local battery, brings in the phonopore sounder. In other words, while one instrument sending currents leisurely is in possession of the wire, this interloper, by means of a very rapid succession of currents, is able to use it also without interfering with the rightful owner.

But so far the instrument has proved unreliable and troublesome, whilst what is known as the 'Cardew' vibration method, as used in war-time (which will do exactly the same thing if a telephone is used to receive the signals), is a good steady arrangement. There is, however, this rather serious objection to both systems, that messages sent by their means could be heard all over the United Kingdom by induction.

Now as to symbols, whether visual or acoustic,

and the way of 'reading' from the various forms of electric telegraph.

The needle-telegraph, as will have been gathered, signals by momentary signs, and is read by the movement of a vertical needle turning freely on an axle, and deflected to the right hand or the left by the current passing through a coil of wire hung near it.

The 'Morse' is read by means of dots and dashes imprinted on a paper slip, and the Sounder by long or short sounds emitted by an iron armature striking on the iron core of an electro-magnetic bobbin.

The 'Hughes' type-printer, which in England is principally used in connection with the Continental telegraph system, depends on the accurate revolution of a wheel armed with type, the strip of paper on which the letters are to be impressed being jerked up against the appropriate letter at the proper moment by an ingenious electrical arrangement. When the Post-Office acquired the telegraphs in 1870, the Hughes went out of favour for inland circuits; but now that it has been brought to great perfection—it can grapple with a hundred messages an hour, and can be duplexed—there seems to be no reason why it should not largely displace the Sounder on busy wires. A beautiful yet simple contrivance so regulates the speed of revolution, which is usually about 120 per minute, as to ensure that both type-wheels—say the London and Berlin wheels—shall be so absolutely synchronous that there shall not be as much as a hair's-breadth of difference between the position

of a given letter at each end at a given moment. Otherwise the London 'A' might come out 'B,' or even 'Z,' at Berlin.

The 'Duplex,' the 'Quadruplex,' and 'Multiplex,' and the 'Wheatstone' automatic, present no distinctive feature as regards the way of 'reading' them, and, with the 'Relay' and the 'Bridge' (an apparatus for 'testing' telegraph wires), do not lend themselves to popular description beyond this:

The 'Duplex,' as improved by Stearns, doubles the capacity of a telegraph wire by enabling it to carry two messages at once, and this is effected chiefly by winding the covered copper wire around the bobbin of the electro-magnet in a particular way—half from right to left, half from left to right. The 'Quadruplex' allows of four messages being sent simultaneously on a single wire, two in either direction. The 'Multiplex' eclipses even the 'Duplex' and 'Quadruplex' in its marvels. Several messages—four, five, or six—may be sent at once in the same or opposite directions. In this case the secret of success lies in the unimaginable frequency and velocity of the electric pulses, vibrations, or currents. Rap on a table as quickly as may be with any hard substance. Let each blow represent the closing of a circuit—in other words, the transmission of an electric current to a distant point. In between each rap, however swiftly they may follow each other, there is time for many more currents to be made to flow. Here is table-rapping of a serviceable kind!

A succession of raps or taps, of course, implies an interval between each. Such interval is the inventor's opportunity. He so contrives that other manipulators may interpose a current, and another, and yet another. A swiftly-revolving rod is so arranged as to catch as much as is wanted of No. 1 telegraphist's electrical current while hurrying round to catch, a few inches off, what is required of No. 2's current, and so on almost *ad libitum*. Then—wonder on wonders!—it delivers to the line wire in due order this succession of currents, and they in turn make delivery to the several instruments at the other end—such end being, let it be supposed, a hundred miles off. Here is food for meditation! Each operator, it may be added, is quite oblivious of the rappings of his fellow-workers, and proceeds as though he had the wire entirely to himself.

The 'Relay' is a picker-up of new strong currents at an intermediate or terminal office. On a London and Aberdeen wire, the London current, which has lost something by leakage, moves a relay at Leeds or Newcastle, and such relay sends on a fresh current to Aberdeen, and the fresh current, having in turn lost something by leakage, moves a relay on the instrument-table at Aberdeen, which picks up from the local battery in the cellars and delivers to the instrument a suitably strong current, so that it may work thoroughly well.

While sitting alone in the dark little telegraph-room at St. Martin's-le-Grand in 1850, an elementary form

of relay occurred to me, which perhaps was the earliest thought of. An axle in two parts, each insulated from the other, was to be armed with curved points, which points should, according to deflections, dip into cups of mercury connected with a local battery.

I must leave for the next chapter some description of the beautiful 'Mirror' apparatus of Professor Sir William Thompson, now Lord Kelvin, and his still more exquisite adaptation known as the Syphon Recorder, which, when I saw it at work twenty years ago on the Eastern Telegraph Company's cable at Porthcurno, in Cornwall, struck me as the most remarkable apparatus yet produced.

Special instruments called 'repeaters,' which in reality are exalted forms of relay, are fixed at the principal offices, such as TS, Birmingham, Manchester, Leeds, and Bristol. They act automatically, and transmit simultaneously to many places the same symbols. It is possible for a speech, delivered in even a small town in the North of Ireland or of Scotland, to be recorded at the same moment in every town, south or east, west or north, in the United Kingdom which publishes a daily newspaper. Does not this strike the reader as a story worthy of Scheherazade of the Arabian Nights? It has, moreover, an advantage over that wonderful compilation of narratives—it is true.

Now as to working circuits. An iron wire, 120

miles or so long, carried from London to Birmingham, and taken to the earth at each end, would, if cut in fifty places, and fitted at each division with a proper instrument, so as to connect every village and town on its way, admit of direct telegraphic communication being held between London and all the interpolated places.

But it is obvious that if each of the fifty villages had a message to send at the same moment, and if each message occupied the wire for an average of three minutes, the last message would sustain a delay of 150 minutes, or two hours and a half.

This would hardly be acceptable telegraphy, so a wire, to work at its best, must, when the number of messages is sufficient, be clear of intermediate apparatus; and as its capacity, though varying in proportion to the excellence of the instruments used, is limited, large offices require for the maintenance of rapid communication to other principal places not merely one clear wire, but several.

Every town of size within 100 miles of London, mostly all within 200 miles, and not a few at greater distances—Newcastle, Edinburgh, Glasgow, Aberdeen, Dublin, Belfast, Cork, for example—are connected with the Central Telegraph Office (TS) by one or more clear wires, one end of each of which is soldered on to the pneumatic tubes at St. Martin's-le-Grand and the other put to earth at the distant town. Each office has its London wire, or wires, to itself. Some have two wires; others, such as Liverpool,

Manchester, Glasgow, Leeds, Birmingham, and Bristol, many more. But the smaller towns and villages use, as a rule, a wire which works into a town near at hand. In some cases the wire is shared by three or four village offices, which are formed into groups subordinate to a post town.

Just as with letters, so with telegrams, collection at convenient centres and distribution from others is the basis of organization.


The small towns and villages being connected usually with their respective head post-offices, and those with the Metropolis or some other large centre, circulation is simple. Thus, a telegram from Burgess Hill in Sussex to Sloane Street in London would be telegraphed first to the Brighton Post-Office, then re-telegraphed on a clear circuit to the General Post-Office, and, finally, again telegraphed on a clear circuit to the Knightsbridge Branch Post-Office for delivery. Or, again, a telegram from Ringwood to Sligo—Ringwood to Southampton, Southampton to London (TS), London to Dublin, Dublin to Sligo. It is, of course, more simple still as between the large towns. For example, the transmission of a telegram from Jersey to Belfast would involve only one repetition—thus: Jersey to London (TS), London to Belfast.

The telegraphs have cross-wires, just as the letter post has cross-posts. Liverpool, Manchester, Birmingham, Leeds, Edinburgh, Glasgow, Dublin, Belfast, and many other places, have wires from one

to the other quite distinct from the long through wires to TS.

The postal telegraph has at its command great resources for meeting special calls on its powers on public occasions of importance. If the Prime Minister were announced to speak at St. Albans, the leading newspapers all over the country would require almost verbatim reports. Now, St. Albans, in an ordinary way, probably finds one clear circuit to London enough for its needs. But on such an occasion it would require a dozen circuits—not only several to London, but others to Manchester, Leeds, York, Bristol, Edinburgh, and elsewhere.

The twelve circuits would be furnished by dividing six main trunk wires, all passing through St. Albans, some following the Great North Road, others the railway route. Then St. Albans would become possessed for the occasion of six circuits to the North (two of them, perhaps, to Manchester) and six to the South—all the latter, of course, going to London. The Manchester Post-Office might appropriate one of the two wires to its own use, and join the other to a local wire carried through, say, to Huddersfield. St. Albans would thus be able to 'speak' on one wire direct to Manchester and on the other to Huddersfield, using the other four northward wires for circuits to Liverpool, Dublin, Belfast, and York. Of the south lengths, the General Post-Office might take one for its own use, and join another to a Glasgow wire, a third to a Bristol wire, and so on. This would enable



St. Albans to 'speak' to London, and through it to Glasgow, Bristol, Edinburgh, Cork, etc.

In fact, assuming that there was an especial reason for establishing, not one circuit, but three or four circuits, from St. Albans to Bristol, it would be easy to do so. By temporary changes, at suitable points, telegrams could be made to flow direct from St. Albans to Bristol by London, by Birmingham, by Exeter, and even by the route of Southampton. All this would be the work of a moment. Thus, by means of the multiplicity of trunk-wires at its disposal, the Post-Office does what no single company could do, viz., places, on occasion, a country town—perhaps even a mere hamlet—at short notice and small cost, in direct telegraphic communication with the great centres of commerce and population.

The method of the Post-Office in preparing for the transmission of a large amount of news is worth following out. It may be assumed that notice is received at headquarters that on a given date the Chancellor of the Exchequer intends to address the electorate in Hampshire, and that a news agency requires a verbatim report of his speech to be transmitted from one point to others—let us say from Ringwood in the New Forest to London, Manchester, Bristol, and elsewhere. The telegraph will have to forward at least 20,000 words.

Now, Ringwood is not a large town, and a single-needle circuit to Southampton is enough for its ordinary wants. Twenty thousand words on a single-

needle circuit would occupy it for perhaps a thousand minutes, or about 16 hours ; so clearly something better must be contrived.

When the appointed night arrives a choice band of selected telegraphists—chiefly from London, which is the home of automatic ‘Wheatstone’ working—arrive on the scene of action by five o’clock. They find that the Royal Engineers have transformed the little post-office at Ringwood into a great telegraphic centre. The single-needle wire has been put through to London and fitted with a ‘Wheatstone’ transmitter, working at the rate of 350 words a minute ; a wire belonging to Dorchester or Weymouth has been divided, and one section used for a Bristol circuit, the other for a London one. With two London circuits there is a potentiality of telegraphing 700 words in a minute ; so the telegraphists would soon catch up the speaker.

When the special staff arrive the circuits are tried through, the post of each man is allotted, and every preparation is completed. Soon after eight slip begins to pour in from the reporters ; the punching clerks transform it into long punctured tapes, the transmitters begin to hum.

Now would come in with great effect the repeaters already referred to, so that by the act of a single manipulator at Ringwood a dozen different towns might be supplied simultaneously by means of repeaters fixed at suitable points with the same telegraphic despatch.

At the rate of 350 words a minute the whole speech would be worked off in an hour ; but abridged reports which take time have to be sent to other places than the great cities. Still, assuming that the orator began to speak at 8 p.m., his speech would be completely telegraphed by eleven o'clock to destinations in various parts of the United Kingdom, and the key clerks at the Ringwood office soon afterwards would signal ' All clear ' and ' Good-night ! ' to TS.

Swift provision of circuits for purposes such as these is rendered possible by the practice of bringing all wires into large post-offices, dividing them, joining the two ends of each wire to two brass terminals or screw-couplings a few inches apart, then joining the terminals together by an easily removable copper-wire. To disconnect the through wires and apply them to any purpose, all that is necessary is to unscrew the terminal and take off the copper-wire. Thus, at Rugby, the wire London to Birmingham becomes at pleasure, say, a Rugby and London length on one side, and a Rugby and Birmingham length on the other. To restore the continuity of the wire, the terminals are recoupled, and the wire is once more intact as a London and Birmingham circuit.

Telegrams usually circulate by the shortest route, but the shortest is not always the best. If Bristol has a telegram for Coventry, there is a choice of routes, *viâ* Birmingham and *viâ* London respectively. It is conceivable that a telegram from Bristol to Brighton would circulate more quickly *viâ* London,

which is the longer way, than *viâ* Southampton, which is the more direct. There would be a single repetition in each case, but the means of communication by London are the more ample of the two.

During extensive interruptions of the communication, the sailor's maxim of 'Any port in a storm' has to be acted on, and the telegrams transmitted by whatever route is open. There is a legend that the wires to the North being stopped, an urgent message from London for Newcastle was forwarded by way of Hamburg, first crossing the North Sea by a Government cable, and then recrossing it through the Great Northern Telegraph Company's wire. But this was before the Continental Gallery was established at the Post-Office.

What happened within my own knowledge was that we once sent messages during a breakdown from London to Carlisle through Sligo, thus: London to Dublin *viâ* Haverfordwest and Waterford, Dublin to Sligo, Sligo to Belfast, Belfast to Glasgow, and Glasgow to Carlisle.

In a 'Journalist's Note-Book'* it has been recently related how the special correspondent, desirous of obtaining admittance to a newspaper office in Fleet Street, and being unable to gain attention, betook himself to the Central Telegraph Station, and telegraphed to the Irish end of the special telegraph-wire worked from the newspaper office to Ireland, and

* Hutchinsons, 1894.

requested the Irish clerk to tell the Fleet Street clerk to come down and open the door.

History had repeated itself. In 1848, almost fifty years earlier, I was once alone at night in the branch telegraph office which then existed in Seymour Street, Euston Square, when the gas went out, and left me in total darkness. No matches were at hand, but I thought there might be some in the telegraph-office in Euston Square railway-station. No telegraphic communication existed between Seymour Street and Euston, but there was such between Seymour Street and Birmingham, and between Birmingham and Euston Square. So I telegraphed to Birmingham to ask Euston to send me over a match. In a few minutes came a whole box.

Let us imagine that we are at the Central Telegraph Station on the west side of St. Martin's-le-Grand. It is still mainly in the occupation of the Administrative Chiefs. The new building northwards, which stands on the site of the old Bull and Mouth coaching inn, yet awaits its tenants.

We begin at the beginning. In the basement are powerful steam-engines and boilers, vacuum chambers and cylinders of compressed air, all used in working the 36 miles of pneumatic tubes which, it may not be generally known, under-run London. In the basement, too, is the great battery-room, with its 27,000 galvanic cells and 437 accumulators. But a change seems to be already foreshadowed, when the ordinary cell will be relegated to the limbo of obsolete con-

trivances, and the dynamo or the accumulator shall provide for all wants. In fact, the wires to the Continent already work from accumulators.

On the ground-floor is the pneumatic-tube room, which stretches its long arms to Great Tower Street in the east, and to the House of Commons in the west. There is a mystery about this underground air-pumping which holds the visitor's attention. Here, for example, a written message may be received from Cornhill and sent on bodily to Charing Cross.

For the engines in the basement are constantly at work compressing air into one chamber and exhausting it from another, so driving or sucking felt carriers containing messages through the leaden pipes which, encased in iron ones, are laid from the Post-Office eastwards and westwards.

Through these pipes a stream of telegrams, the actual forms themselves, continually flows during business hours.

To blow a message—or, rather, the carrier—in which a dozen forms may be enclosed, from St. Martin's-le-Grand to Moorgate Street, the compressed-air tap is turned, and a mighty rush of wind hurls the carrier to its destination. To receive a carrier, the 'exhaust' tap is brought into use, and the air, perhaps of Mark Lane, tears along the partly pumped out pipe, pushing the carrier in front of it.

Pneumatic-tubes of small diameter connect various parts of the tube-room and TS galleries, and their use as house-pipes in the galleries themselves greatly

facilitates the conveyance of message-forms from one group of instruments to another. In a few of the large provincial towns also the pneumatic-tube as a transmitter of telegrams is made use of.

On the ground-floor, too, is the Wizard's Cave—the silence-room—which gives effect to that bold venture of the department, a telephone to Paris.

Let us enter the hydraulic-lift and ascend three floors. We are now in the instrument galleries, in the very heart of TS. An animated spectacle presents itself—orderly, if the facts were known, to the smallest detail, yet confused and bewildering to the unaccustomed eye. The noisy hum of a thousand telegraphs in full operation salutes the ear. Busy clerks fill the vast saloons. Swift messengers flit to and fro; house-tubes at work from one part to another sustain a continual popping, as of the distant fire of some line of skirmishers.

Although the place astonishes, because of its size and activity, it is not in reality more wondrous than the snug enclosure at the end of the confectioner's shop where a Morse inker, a Wheatstone single-needle, or an A. B. C., effects the despatch of the telegrams. The same magic wands are in evidence at the Central Telegraph Office as behind the shop counter, but on a larger scale.

The vote required of Parliament for the Central Telegraph Office is one of £387,713. This sum provides for the employment of 3,683 persons. A part—819; roughly, a fourth of the whole force—are

women. They are exempt from night and Sunday duty.

The office is never closed, is never silent—not even on Sundays. In the Metropolitan galleries, groups upon groups of instruments may be dumb from 8 p.m. to 8 a.m. five nights out of seven, and also from Saturday night to Monday morning, but in the Provincial galleries national life on all days and at all hours makes its pulsation felt. But whether by day or by night, an exact discipline regulates the galleries. The division of labour is simple.

The Controller, Mr. H. C. Fischer, holds all the threads in his hands. A Deputy-Controller, Mr. E. May, and four Assistant-Controllers, with suitable aid, form the Controller's personal staff. Then, overlooking the manipulative duty in the galleries and at the Stock Exchange and Commercial Sales Rooms Offices (which for special reasons are included in the responsibilities of TS), 119 superintendents and assistant - superintendents and 68 supervisors in various classifications bring their wits to bear. At the apparatus are stationed 1,897 telegraphists (young men), and 751 *telegraphistes* (young women), so that altogether, in the 24 hours, 2,835 manipulators, less those absent on holidays or sick-leave, are due in the TS galleries.

This does not exhaust the duty list, inasmuch as eight or nine hundred more people—tube attendants, messengers, commissionaires, constables and others—are required to render suit and service.

The chief telegraph office in London is essentially what would be termed in postal language a 'forward' office. It transmits, that is, receives from one point and sends on to another. All London pours its messages into TS—the large and neighbouring branch offices by pneumatic tube, the others by wire. Then TS telegraphs the messages to their destination or to another 'forward' office.

The Stock Exchange telegraph branch is a system apart. The wires run from exchange to exchange, and the messages flow from the sender's pen into, it might almost be said, the distant broker's ear. At any rate, they circulate with amazing rapidity. The Commercial Sales Room has a wire to Liverpool. With these exceptions, TS does all the telegraphing between London and the provinces.

No fewer than 1,118 circuits or distinct wires work out of the Central Telegraph Station. It daily forwards, receives and transmits never fewer than 90,000, and sometimes as many as 140,000, messages.

If one were required to state what is the most marked feature of the establishment, the transmission of news for the provincial press would probably be the answer. Under the Telegraph Act of 1868, the charge for the transmission and delivery of news is fixed at one shilling for every seventy-five words by day, or a hundred words by night, and two-pence extra for every 75 or 100 words transmitted to every additional address. Even rejecting the fact that the address of a news message is very short and

that the address of a private message may be very long, a shilling for a mean of 88 words, as compared with 3s. 8d., would be about a fourth, and twopence, as compared with 3s. 8d., a twenty-second part, of the charge which the public pay for an ordinary telegram of similar length.

Hence, the volume of news which is sometimes poured in upon the wires may be compared to a freshet in the Severn—a tidal wave which calls into requisition all the resources of TS to over-ride it. Most news messages are first punched on a paper slip, which then presents an infinity of little holes, thus :

oo ooo oo o ooo ooo
oo
oo ooo oo o ooo ooo
I s i t s o

Then the 'punched' slip is put into the 'Wheatstone' and transmitted; the same wire conveys the same currents of electricity to Birmingham, Manchester and Liverpool, and on the paper slip at all three cities the round holes punched in London produce the black dots and dashes of the Morse Code:

$\begin{matrix} \cdot & \cdot & \cdot \\ I & s & i & t & s & o \end{matrix}$

Then at TS they take out the 'punched' slip from the Liverpool circuit and send it by another transmitter simultaneously to all the principal Yorkshire towns (or *vice versa*). A thousand words run through in three minutes.

The Continental Gallery, or cable-room (TSF), in-

cluding the Paris telephone, is another remarkable feature of this great Central Institution. Up to the end of March, 1889, telegraphic communication with the Continent was in the hands of the Submarine Telegraph Company, under an agreement scheduled to the Telegraph Act, 1868, which company had established itself first in Cornhill and ultimately in Throgmorton Avenue.

On April 1 a second, though smaller, transfer of telegraphs took place, and the Post-Office, which, although owning a large mileage of cable in the North Sea, had not hitherto had a single instrument working to a foreign State in its charge, took possession of all the cables connecting this country with France, Belgium, Holland, and Germany, ten in number, put down two new ones, and, with 56 submarine wires at its disposal, addressed itself in good earnest to Continental telegraphy. Thereupon the Submarine Telegraph Company disappeared from the scene.

Two and a half years later, October 17, 1891, all the circuits were moved over to the General Post-Office, where 54 instruments (chiefly Hughes' type-printers) are daily working to foreign countries. Over these wires, which require the services of about 240 telegraphists and superintendents, pass (thanks to rapid transmission and a low tariff) an average of 15,000 messages a day; while the Paris telephone is kept fully at work all day long with the conversation of Private Wire Renters and calls from the public call-offices.

Although one Hughes or Morse telegraph is very like another of the same class, and the processes in TSF are closely akin to those of TS proper, yet the discriminating visitor will soon espy, in the former office, especial marvels of telegraphy. Among such may be classed direct circuits to the South and South-west of France, to Italy, and Austria.

Nothing marks the strides of science in this branch more than the increased length of permanent circuits. Time was when 200 miles included the extreme workable limit, although now and then, under very exceptional circumstances, signals were exhibited over greater lengths as an indication of the possibilities of the future. London to Liverpool, London to York, London to Leeds and Hull, were circuits not easily maintained in daily working order forty years ago. Now, connected with TSF are permanent circuits, approximately 1,200 miles long, reaching to Vienna and Rome, by the North Sea and Germany in the former case, and by the Straits of Dover, Paris, Lyons, and Turin in the latter case.

Two causes operate to limit the workable length of a circuit unaided by a relay: (1) Loss of insulation from unavoidable causes, such as rain, fog, and snow; and (2) the normal resistance of the wire. Even when aided by a relay, want of message-traffic to keep the wire profitably employed may suggest a shorter circuit, and the repetition of 'forward' telegrams at a great centre.

These remarks do not, of course, apply to very

long deep-sea cable circuits, such as those of the Atlantic and other cable companies. In such cases special forms of apparatus have to be employed ; and even then the speed of working possible on a land circuit is unattainable through a cable.

Between London and Vienna two wires can be kept profitably open, and between London and Rome one wire. It is remunerative to maintain direct wires from London to Boulogne, Havre (there is also a direct wire from Liverpool to Havre), Calais, Lille, Paris, Bordeaux, and Marseilles ; but it would not be commercially profitable to work direct to Rouen, Dijon, and such-like towns, because there would be waste of power, as the wires would not be fully occupied. It is better to send the messages for re-transmission to some other French office, perhaps to Paris.

So with the wires of the cables in the German Ocean. Great centres of financial activity, like Hamburg, Bremen, and Berlin, have their direct circuits from London. As to Vienna and Rome, it is not too much to affirm that telegrams are habitually transmitted in a few minutes, notwithstanding the great length of the circuits and the vicissitudes of weather and chances of interruption to which they are necessarily exposed.

Telegraphic communication with the Continent has certainly not suffered in efficiency by the transfer of the management in England to the hands of her Majesty's Government. It has received a new stimulus,

and has prospered in every way, not the less so because the passionate striving of the Post-Office for an ever-increasing celerity of inland transmission has not been without its influence on the foreign administrations associated with the working of TSF.

My private belief is that TS sets especial store by the chronofer. It certainly makes a noise in the world, firing off guns in different parts of Great Britain at one o'clock in announcement of Greenwich mean time. Once, in the Royal Albert Hall, it was intended to fire, not, indeed, a gun, but a torpedo, by electricity. An eminent lecturer said to the President: 'Your Royal Highness will see that the torpedo at the side of the hall will explode when I bring these two wires together.' So three thousand people held their breath. The wires touched; not a sound was heard, not even the resonant fall of the proverbial pin. Directly the lecture was over, the lecturer, wires in hand, said: 'Sir, the failure of the torpedo to explode is unaccountable. It ought to have gone off when I did *so*.' Bang went the torpedo! A cautious assistant had disconnected the wires before the lecture, had omitted to rejoin them when it began, and had hastily restored them before its end.

The back of the test-box especially deserves notice. There are to be seen in their naked simplicity the nerves—the gutta-percha-covered copper wires of the postal telegraph system. For choice, this page should

be written in the dusky recesses of the Test Chamber, one hand grasping the pen, and the other wires, through which are pouring, all unseen, chapters of stirring romance. That would be a dull brain indeed which would not be quickened by such surroundings! If these wires are twitched off from their couplings—what will Wall Street in New York do? If the Great Western group are snipped through with these pliers?—alas for Penzance!

Great bunches of dark-brown wires come up in chaotic confusion through the floors, from pipes in the street. Who can tell which is which—how separate the Ludgate Circus from the Anglo-American wire? Yet each goes to a numbered terminal, or screw coupling, which is as distinguishable from its neighbour as the Prime Minister from the Leader of the Opposition.

In the Metropolitan galleries there is every night (on week days) a curious change. As eight o'clock strikes, the circulation of Metropolitan telegrams, with some exceptions, alters. Fewer offices serve as delivering points, and many telegrams which by day are telegraphed for delivery to one office, are at night telegraphed, or 'tubed,' to another.

If every bullet has its billet, so every telegram has its appointed route. The office 'code-book' regulates the point; from it there is no appeal. Thirsk?—how should its messages circulate? 'YO,' says the code-book, and to the York circuit the distributor takes the form. Bangor?—'LV, CS,' is the oracular

utterance, meaning, for choice, send the message to Liverpool, or, as its next best route, to Chester.

Daily, too, at five o'clock p.m., there is a change welcomed on all hands, and of never-failing popularity. The largest tea-party probably in the world is given at TS. The cup that cheers without the baleful effects attributable to other cups is no unimportant restorative of powers jaded by the incessant 'hammer, hammer, hammer,' not of 'the hard high-road,' but of the tireless sounder and the ubiquitous Wheatstone puncher. 'Once more unto the breach, dear friends,' might be the Controller's Shakespearean cry on the strength of the revivifying influence of his Brobdingnagian teapot.

The Controller has a grip of every arrangement. He knows the weakest as well as the strongest point of his charge—why delay sometimes attends messages on such and such circuits; how it is that they invariably go merrily as a marriage-bell on others. On all he brings to bear an unrivalled experience, gained in the cities of Hamburg and Hanover, in the halls of LY, in the time of the Electric and International Telegraph Company, and for nearly a quarter of a century under the paternal rule of the Post-Office in TS.

The duty of clearing up errors is sometimes a difficult one. It is not always possible to settle which was in fault—the sending clerk in signalling wrongly, or the receiving clerk in misreading signals. At

times the blunders lie in the handwriting—now of the original writer of the telegram, now in that of the telegraphist. It happened to me once to telegraph home ‘hot luncheon.’ On arrival the cupboard was bare; the telegram expressly stated ‘*not* luncheon.’ At an office of repetition, the receiving clerk had written the ‘h’ of ‘hot’ with a short loop, which made the letter look like ‘n,’ and it was thus sent on.

Worse still, however, when it happened that the Postmaster-General himself telegraphed to a livery stable-keeper to send a man with a *hack* to meet him on the arrival of the 4.30 train. He was met by a man with a *sack*. Here, in transmission, one of the dots, or short sounds, of ‘h’ had dropped out, and the receiver had read three dots (‘s’) instead of four dots (‘h’); hence ‘sack’ instead of ‘hack.’

Strange as it may appear, it is believed that, except in the case of beginners, fewer mistakes occur in reading from the sounder, when the ear alone is the guide, than from the ink-writer, by which, on a paper riband, dots and dashes are plainly imprinted.

Amongst the ingenious devices which flowed from the brain of Mr. Scudamore was one meant as an aid to the memory in acquiring a knowledge of the dot and dash system. ‘Turnips Make Oxen Cheerful’ impressed on the learner the fact that the initial letters T M O Ch were all represented by dashes or long sounds, and there was another line which dealt with E I S H, of which dots, or short sounds, are the equivalents.

Still, the Morse code is the one universal language. Every telegraphist, whatever his nationality or wherever he is stationed, appreciates ... (V.E.), which means 'end of message,' or in conversation by telegraph, 'I understand what you say;' but if the spacing, which is as important as the marking, is not all that it should be, it would be read: ... (S.N.).

To those who, like myself, recollect the slow and uncertain operations of apparatus requiring two wires, the marvels which science has accomplished with one wire in the direction of automatic transmission, of duplexing, quadruplexing, multiplexing, and of submarine cable working, surpass the wildest dreams of the liveliest imagination.

At the Jubilee celebration of 1890 in the Guildhall, the Multiplex was worked six ways to Birmingham, *i.e.*, all six ways in one direction, or three ways to Birmingham, three ways to the Guildhall, or two ways in one direction, four ways in the other; in any case, all at once and on a single wire. Similarly, the Quadruplex was worked four ways to Manchester; the Sounder in the ordinary way direct to Aberdeen, in the direction of John o' Groats, and to Penzance, 12 miles short of the Land's End.

The 'Wheatstone' automatic telegraph has carried news at the rate of 429 words a minute from London to Dublin. The Syphon Recorder and the Mirror have accomplished wonders on submarine cables, and as for the useful, homely, workaday apparatus, the Relay, my own eyes have seen messages received by

means of it on an ordinary ink-writer in Moorgate Street Buildings, in London, direct from Kurrachee, at the head of the Persian Gulf, about 4,000 miles distant.

Under the North Sea, across Germany, over the vast steppes of Russia, through the heart of Asia, through the dominions of the caliphs, into the Eastern Empire of Queen Victoria, the electric current, uninterrupted, sped its way. Through cables made on Thames side, through wire drawn at Birmingham or Manchester, through insulators moulded in the Potteries, through little relays, ticking for their lives, now in the solitude of a desert, now in the heart of an Oriental city, the stout Indo-European telegraph carried the pulsations.

Perhaps a pale-faced European telegraphist taps away at Kurrachee; a simultaneous click, click, clicking occurs at various points along the line for thousands of miles; finally, a spruce young English clerk up a dark staircase in a small dingy two-pair front room, with the London street cries surging from below, translates the clicks aloud. Years have passed since then, and memory is deceitful, but they may have been: 'The—weather—here—is—rather—hot. May—I—offer—you—a—pipe—and—sherbet?'

CHAPTER XVII.

BENEATH THE WAVE.

WHEN C. V. Walker had sent his message of success through two miles of salt water and eighty miles of aerial line from the Channel to the Thames, there were not wanting men of enterprise to carry the great experiment into practical effect.

Without a moment's delay steps were taken to procure permission to lay a cable between the coasts of England and France. Two brothers, Mr. J. Watkins Brett and Mr. Jacob Brett, played a principal part, and in the concession which was specially obtained a salient clause provided that telegraphic communication should be established by September, 1850. The concessionnaires set to work.

A copper wire 30 miles long was quickly coated with thick layers of gutta-percha, and in that form, with no more strength or protection than was afforded by the metallic strand within, and perhaps the thickness of a quarter of an inch of gutta-percha outside, was laid between Dover and Cape Gris Nez, and a message was telegraphed through it before the latest

stipulated date. The actual distance is 21 miles, but plenty of slack was prudently allowed.

Next day the slender rope broke, and was hopelessly lost. A few years ago a friend told me he had picked up 3 or 4 feet of it on the shingle at Folkestone.

This abortive attempt had one highly important, unlooked-for, and, it must be owned, somewhat untoward result. It made plain that a long covered wire was not so well adapted for swift ordinary telegraphy as one suspended on poles and freely exposed to the air. A current sent into the covered wire did not all go out at the other end. A part came back again, somewhat as though new cannon, on being discharged, insisted on the inconvenient procedure of blowing out at the breech as well as the muzzle.

When the telegraphist at each end of the wire on the day of its submergence saw what was happening on the dial-plate, he put it down to the effect on the distant telegraphist of festivity proper to the occasion. Two or even three years later the same phenomenon on a new double-needle underground circuit 250 miles long (which ultimately failed) startled and grieved me, as I was then ignorant of cause and effect. We were secured by underground wires against the effect of bad weather, it was true; but induction seemed to be even a more formidable foe than a hostile barometer.

A vivid account of the day's work—the lively hopes of success and the consequent chagrin at failure—is

given by Mr. Willoughby Smith in his 'Submarine Telegraphy.'

But the wire having been laid, the concession held good; and on the strength of it Mr. Jacob Brett and Sir James Carmichael formed the Submarine Telegraph Company (which has had a prosperous existence of just 40 years) to make, lay, and work new and strong cables across the English Channel.

'An Englishman in Paris,'* in writing of the *coup d'état* of 1851, and connecting the date of that sanguinary phase of modern political history with the completion of the new cable, states (vol. ii., p. 49) that 'the concession [probably some new deed confirming the earlier one] was given on January 8, 1851, on which occasion the last words to Mr. Walker Breit were to hurry it (the laying of the cable) on as much as possible.' The Mr. 'Breit' referred to was probably Mr. J. Watkins Brett.

The newly-formed company lost no time in making a cable which, in one highly-important feature, at any rate—viz., its protecting wires—has been a pattern for those which have followed.

Then sprang into prominence men whose memory, as pioneers in their respective paths, the telegraphic world should keep green. Mr. Statham at the Gutta-Percha Company's works, and after him Mr. Chatterton, covered the conducting wires with the new gum and devised super-insulating compounds. Messrs.

* Chapman and Hall, 1892.

Glass and Elliot out of the insulated wires formed a rope. Mr. R. S. Newall, of Gateshead, a great wire-worker, saw his opportunity, and spun a sheathing of many iron wires around the rope—a course which all cable-makers have copied. Crampton, the company's engineer, and the electrician, Wollaston, his colleague, undertook to lay the cable. The Government lent the needful ships.

On September 25, 1851, 24 miles of four-wire cable were run out to cover the 21 miles of channel between the opposing shores. When the *Blazer* had cast overboard her last coil, she was still a mile from land, and there was no alternative but to buoy the end and leave it. Another mile of cable had to be manufactured. It was soon completed and laid, and communication was established on October 17 ('An Englishman in Paris' says on November 13), 1851. On December 2 came the *coup d'état*. Strange to say, the submarine wire notwithstanding, news of what had happened in Paris early that morning did not spread in London until two or three o'clock in the afternoon.

The new cable worked admirably. Sixteen years afterwards it was pronounced to be in a state of perfect insulation. Even now much of this cable, almost half a century old, is still beneath the wave, and, though mended again and again and patched here and there, is in good working order as one of the Postmaster-General's lines.

Cable-laying followed fast and furious, at times

with entire success, at others with failure and great loss; but in the end, as knowledge grew, experience ripened, and appliances improved, submarine telegraphy entered on a period of assured prosperity. Every ocean-bed is traversed by the electric wire; 130,000 nautical miles of cable federate the British empire.

There is no doubt that the pride of the engineer's branch lies in submarine work. When this branch succeeds, as it has done, in designing and laying a cable across the English Channel, which, in connection with suitable land wires, enables the sound of the human voice in London to be heard, by means of the telephone, at the same moment in Paris, then it finds life enriched by the pleasures of successful scientific enterprise.

To lay and repair the submarine cables, both inter-insular and international, the Post-Office has acquired a little fleet of two paddle-wheel steamships—the *Monarch*, a new and beautiful vessel of 1,121 tons, and the *Alert*, an old ship, renamed, of 369 tons.

The *Monarch* was built in the Clyde, and when completed and ready to receive her cable-machinery, was ordered round to the Thames for that purpose. At sea, south of the Isle of Man, she encountered a great storm, and after enduring it for a time shaped her course to Milford Haven for shelter. Some of the lights which mark the approach to the Bristol Channel were actually sighted, when a portion of the machinery became red-hot, and, lest it should give

way and the vessel drift on to a lee shore or fall foul of the Shutter of Lundy, the captain, with courage and discretion, but to the consternation of the storm-tossed landmen on board, altered the course, and in the teeth of the tempest made for the open Atlantic and that weary waste of waters which do continually lash the Scilly Islands and the Land's End. A friend and colleague who was on board gives me, by letter, so spirited an account of the voyage that it seems well to reproduce it here :

‘ The voyage of the *Monarch* from the Clyde to the Thames was one of alternate sunshine and rain, of calm and tempest.

‘ Nothing could exceed the beauty and the brightness of the scene as we left the Clyde, but before we reached Bute the weather became threatening, and it was deemed prudent to anchor in Rothesay Bay. There we lay a day and a night, whilst the rain descended in torrents and the wind gave us a foretaste of what was in store for us.

‘ But the morning brightened, and we started onward on our way. There was an enjoyable breeze, and the sea still laboured under the effects of the storm ; but we proceeded gaily until we had left bold and solitary Ailsa Craig behind us. The wind then freshened considerably, and as night drew on we found ourselves face to face with a gale which continued to increase in violence until it became a perfect hurricane.

‘The ship being on her first voyage, some anxiety was naturally felt. She was without her cable-machinery and boats, which would have helped to steady her, and she consequently rolled heavily. Her engines were new, and had only been put to the test of an ordinary trial trip. There was, however, no help for it but to put her head to the wind and face the storm.

‘We cleared that dangerous spot, “The Smalls,” and made for Milford Haven. The night was, however, of pitchy darkness and as “thick” as could possibly be imagined, and the greatest caution was needed. The rock-bound coast at the entrance to the haven was perilously near, when, to our dismay, one of the bearings of the engines, which had been standing the severe test so well, fired. The chief engineer, Mr. McNab, who had never left the engine-room and was resting on a bench, was at once aroused, and his skill and ingenuity overcame the difficulty. But it was a critical moment, and instead of continuing to try to enter the haven where we would be, it was at once decided to put distance between ourselves and those dangerous neighbours, the rocks, and to make straight for the open sea.

‘It was a night of anxiety which all on board will ever remember, and it was with thankful hearts that we found ourselves in the morning round the Land’s End, the sea moderating, and a glorious sunshine again making all things bright and beautiful. Our perils over, how we rejoiced in the change, and never

did voyage along our southern coast seem more enjoyable.'

The *Monarch* had another anxious time. When laying the London and Paris telephone cable she was caught in a blizzard (it was mid-winter) close off the lee shore; but, fortunately, while the anchor was slipping over the smooth chalk, it hooked, and was held fast by the La Panne cable.

Altogether, in charge of the Engineer-in-chief are 2,355 nautical miles of national cable. The longest cable is that which is laid between Lowestoft, on the east coast, and Nordeney in Germany. It is 268 miles in length.

But for a change which in the early fifties came over the form of telegraph in use, it is not easy to guess what would have been the fate of submarine telegraphy. Through the 30 miles of Channel cable of 1850 intelligible signals could with difficulty be exchanged. Induction, as stated, was the bane. The effect of the slow working of the Atlantic cable was at once seen in the tariff of charges. High as was the inland rate—20 words from London to a place 4 miles from Glasgow costing 20 shillings—under the Atlantic tariff for a 20-word message to New York there had to be paid as much as £20.

A remedy had to be found. Then stepped in Professor Thompson with his Mirror and Syphon Recorder.

Although with the ordinary apparatus used for

land telegraphy, such as the Morse or Sounder, a word a minute could scarcely be realized on the Atlantic cables, yet, says authority,* 'with the Mirror instrument fifteen words are easily sent in the same time, and twenty-four have been obtained.'

That being so, it would be proper to give the Mirror its due in the shape of a full explanation; but when past-masters of the art, bent on using the simplest terms in their description, tell us that the signals 'need not be read by separate distinct currents, as in land lines, or when condensers are used, but by the increment or decrement of one continuous current, which is continuously flowing out of the cable from its great capacity, and whose potential is only varied by the reversals made at the sending end,' experience warns me against diverging a hair's breadth from this description lest pitfalls should way-lay both author and reader. 'There are, indeed, more things in telegraphy, Horatio, than are dreamt of in your philosophy.'

Still, the exigencies of the case embolden me to add on the same authority:

'The Mirror is really a single-needle instrument, whose index is a spot of light; but apart from its excessive delicacy, it has this advantage over the vertical needle, that in place of having a fixed *zero* or *neutral* line, to the right or left of which the needle vibrates to impart its signals, the zero line—when

* 'Telegraphy,' Preece and Sivewright; Longmans, 1876.
VOL. II.

condensers are not used—moves with the spot of light and wanders all over the scale, the signals being made by the pulsations or vibrations of the spot, and being read by their direction, and not by their position and amplitude.'

At the moment at which these liberal quotations are being made from their text-book, Mr. Preece, C.B., is in the North Sea overhauling her Majesty's cables, and his pupil and early colleague, Sir James Sivewright, K.C.M.G., formerly of the General Post-Office, is outspanning in the wilds of Southern Central Africa, carrying with him civilization towards the Zambesi in the shape of British influence, and the prospect of extended posts, railways and telegraphs.

The Syphon Recorder is well named. There is, in fact, an actual syphon filled with ink which, by electrification, throws out a tiny black jet, so marking a paper band with an irregular line—that is, a line more or less deeply serrated. Now, these teeth of a saw, some blunt and at a low level, and some sharp and towering above their fellows, correspond with the signs of the Morse alphabet.

Still relying on others, and warily avoiding the responsibility of personal explanation of these devices of the scientist, it may not be out of place for me to add that the present method of bringing electricity to act on whatever form of apparatus is used on Transatlantic cables is ascribed by Messrs. Preece and Sivewright to the late Mr. C. F. Varley, and the description just given, so far as the charging of the

cable is concerned, is the proper explanation of that remarkable process.

But for the benefit of those who do not follow electrical phenomena with ease, I may remark that about 20 years ago Mr. Varley explained to me fully and clearly his masterly arrangement for working the Atlantic Cable. In dispensing with the actual passage of an electric current through the cable—as described by Preece and Sivewright—he to a large extent overcame the obstacle of induction, and he wholly avoided the risk of enlarging an incipient flaw by the use of powerful streams of electricity, as happened in the case of the 1858 cable to America.

At this distance of time it is not possible to recall the precise language employed by the inventor; but an idea may be gained from an illustration which he used. Imagine two dinner-plates, clean and dry, covered with tinfoil or paraffin, and fixed on edge an appreciable distance—say an eighth of an inch—apart. They may be likened to a pair of cymbals, waiting to be clashed together, and so enable the New World to hear the music of the Old. To one plate shall be attached the Atlantic Cable, to the other a signalling instrument and the earth. This apparatus, it may be supposed, is at Hearts' Content. At Valentia, where there are similar plates, depression of a key (connected with a battery and the earth) affects the wire—not sending a current through it, but, as it were, electrifying it moderately—increasing or altering the galvanic influence.

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Then comes another of electricity's wonderful phenomena. As in Ronald's telegraph two pith-balls, suspended by filaments of silk, will fly apart if electrified similarly, or fly together if electrified by opposite polarities, so the charging or discharging by the key and battery at Valentia electrifies, now positively, now negatively, the cable dinner-plate at Hearts' Content, and that in like manner affects the land-line dinner-plate an eighth of an inch from it. Then all is plain sailing, for the second dinner-plate transmits to the signalling telegraph—the Mirror or the Syphon Recorder—suitable impulses which are rendered into signals and words.

To some extent this is a digression, for neither the American cables nor those to the East are the property of the Postmaster-General; yet he is so intimately associated with much of the traffic flowing over them, that they may be regarded at least as cousins-german to the British postal system.

With the cables in charge of the Post-Office there is less trouble, the distances, and therefore the electrical resistance, being less. For it is an axiom in telegraphy that the speed at which submarine cables may be worked varies inversely as the square of their length; so that if one 2,000 miles long will carry only a word per minute with ordinary apparatus, another 268 miles long will carry 55 words a minute with the same apparatus.

Now, the change of apparatus effected when cables came into vogue was from needle to 'Inker,' and

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induction, which caused the galvanometer or needle to indulge in the wildest gyrations, was less erratic under the sobering influences of a relay and the ink-writer. Thus, while the rate of 55 words a minute is not a third of the speed obtained on land-lines by the 'Multiplex,' nor a fifth of that of the Wheatstone 'Transmitter,' yet it is as high as the most expert telegraphist can work, and even higher.

So with the aid of judiciously-planted relays, which serve to raise the whole rate of working of circuits (land wire and submarine wire included) to the rate at which the cable could alone be worked, the Central Telegraph Station (TSF) telegraphs merrily and constantly by ink-writer or 'Hughes' to the cities of the Continent, some, as has been shown, so distant as Rome and Vienna, and always, as a matter of course, to Berlin and Hamburg, to Brussels and Paris and Havre.

As these lines are written, there lies on the table before me a hand's-breadth of the latest and most perfect form of light submarine cable—viz., that recently laid down to Lundy Island. It is exactly an inch and a half in diameter, and has for conductor a twisted copper wire of seven strands, sheathed in gutta-percha, and sheathed again in brass tape, because of a destructive boring mollusc (*Teredos navalis*) peculiar to Western waters, which pierces through less effective mailing. The brass is covered with thick yarn, and a special compound known as Chatterton's; it is armour-plated with ten iron wires,

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each a quarter of an inch in diameter, which are twisted spirally around, and take a complete turn once in every thirteen and a half feet. These give strength and flexibility. A bituminous compound, on the outside, preserves the iron wires from rust.

Lundy Island is now lifted out of an abyss of desolation, and may be made an accustomed anchorage and place of call for the homeward-bound shipping in the Bristol Channel, and an outpost which, in time of war, may, thanks to this electrical extension, prove an invaluable security for the Western seaboard.

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PART V.

CHAPTER XVIII.—BLOCKS BY THE WAY.

CHAPTER XIX.—THE PARCEL POST.

CHAPTER XX.—THE ROAD REGAINED.

CHAPTER XXI.—THE OUTER WORLD.

CHAPTER XXII.—THE TRAIN AND THE BOAT.

CHAPTER XXIII.—BY CORAL STRANDS.

CHAPTER XXIV.—OVER THE DEEP BLUE SEA.

CHAPTER XXV.—JUBILATION.



CHAPTER XVIII.

BLOCKS BY THE WAY.

ALL compilers of postal experiences replenish the ink-bottle when they come to that topic so fruitful of anecdote—the storms which hindered, and even stopped up, the coach-roads of yore. Still, almost annually, heavy falls of snow block the lines of communication, whether by road or rail, and interfere with the regularity of postal communication, and still are to be found instances of especial devotion to duty in the trying circumstances thereby occasioned.

Within the memory of officials of the Post-Office, at least four great snowstorms out of many have, in an unusual degree, blocked postal routes, and caused serious delay to the mails—viz., that (which is especially memorable) of 1814, and those of 1836, 1867, and 1881.

Bridging over his long service to the State—latterly as Assistant-Secretary in the Post-Office, and formerly as Inspector of Prisons—Mr. Frederic Hill, now in his ninety-second year, yet recollects at the time of the great frost of 1813-14, the longest and most

severe he can remember, hearing of many mail-coaches being stopped by the roads becoming impassable from the accumulation of snow. I know that the guards of the mails did their duty in that winter as valiant servants of the Crown; no peril nor exposure stayed their efforts. Thomas Hasker, my predecessor of the period, took care not to hide the merits of his men from official view. John, Earl of Sandwich and Thomas, Earl of Chichester, joint Postmasters-General, recognised and rewarded the exertions, not of one mail-guard only, but of 197. Their lordships made it clear that they could appreciate good service, and they adopted in the tens the course which the blind Postmaster-General followed in the eighties—they encouraged the staff by timely words of praise and approval. To thank in season is one of the most necessary and yet difficult duties of an administrator.

There was cause for thanks and reward. Mr. Hill, residing in the outskirts of Birmingham, was in the thick of the snow, and the severity of that extraordinary winter, when an ox was roasted on the ice of the Thames, evidently impressed itself on his memory by the irregularity of the mail-arrivals at the Warwickshire city. Throughout the month of January things were at their worst.

The London coaches *viâ* Oxford failed to come through. Two mail-guards for a time were missing; it was believed they had perished in the snow. Eventually they arrived, safe but worn out. The

stout-hearted Coleman beat his way down to Birmingham, bringing the bags for Ireland; and as he drove into the yard of the Post-Office, triumphant in a chaise-and-six, surely they raised a ringing cheer. Guard William Smith, finding the Sheffield road impassable for wheels, rode on horseback with the bags sixty miles to Birmingham. His life was several times in danger. The Bristol coach came in with six horses; it had encountered many risks. The roads to London were bad and full of holes, and towards Wolverhampton streams of coal-carts helped to cut them up, so that the mails could not keep time. As for the Government courier going post to Dublin, he was even at Birmingham five hours late.

In North Wales the mountain roads, west of Corwen and Conway, were full of snow. Dublin was without its English mails. No coach could get to Bangor Ferry. A Corwen guard contrived to push through, and, as it were, raise the siege.

On February 5, at eleven in the morning, still came the snow, but at four o'clock in the afternoon set in the welcome long-looked-for thaw.

The storm of 1836 no doubt stands out in remarkable prominence, because of its suddenness and intensity. It began on Sunday, Christmas Day, and by the following night it had blocked the roads within thirty miles of London with deep drifts. It continued for ten days, the fall of snow gradually extending and thickening, until at length mail-coach communication was practically stopped. Guards and coachmen alike

declared nothing approaching it had occurred within their experience.

Sketches which tell the story of the storm better than any letter-press may be found in the collection formed by the late Mr. Gould, of the Office of Works and the Post-Office, and in that of Mr. J. E. Gardiner, F.S.A., of St. John's Wood.

On Monday, the 26th, both the Holyhead and the Chester mail-coaches floundered in the snow at Hockley Hill, or rather in the valley, near Dunstable, the leaders being overwhelmed in a snow-drift, and one of the coachmen being flung from his box. The Chester coach was abandoned. Its mails were put on the Holyhead coach, and all available power being yoked to the latter, it was at length drawn out. Not far distant were other vehicles in similar plight. St. Albans is reported to have been full of conveyances at a standstill.

The Edinburgh mail left London with six horses. The Birmingham up night mail coach, which took the Western route (119 miles to London), stuck fast in a long drift south of Aylesbury. The guard went on with the bags slung across the leaders, but the hapless passengers fared as they best might until the coach could be dug out, and dragged back by cart-horses into Aylesbury.

These are types of what was happening all over the greater part of England and Wales.

Here is the experience of Mr. Nobbs, the last of the mail-guards, who still flourishes at Uxbridge:


‘ The winter of 1836 was a severe one. There were terrible snow-storms towards Christmas time, and many parts of the country were completely blocked. After leaving Bristol one night at seven o’clock, all went well until we were nearing Salisbury—that is to say, about midnight. Snow had been falling gently for some time before, but after leaving Salisbury it came down so thick, and lay so deep, that we were brought to a standstill, and found it impossible to proceed any further. Consequently we had to leave the coach and go on horseback to the next changing place, where I took a fresh horse and started for Southampton. There I procured a chaise and pair and continued my journey to Portsmouth, arriving there about 6 p.m. the next day. I was then ordered to go back to Bristol. On reaching Southampton on my return journey the snow had got much deeper, and at Salisbury I found that the London mails had arrived, but could not proceed any further. Not to be “done,” I took a horse out of the stable, slung the mail-bags over his back, and pushed on for Bristol, where I arrived next day, after much wandering through fields, up and down lanes, and across country—all one dreary expanse of snow. By this time I was about ready for a rest; but there was no rest for me in Bristol, for I was ordered by the mail-inspector to take the mails on to Birmingham, as there was no other mail-guard available. At last I arrived at Birmingham, having been on duty for two nights and days continuously without taking my clothes off.’

The distance by mail-coach road from Bristol to Portsmouth and back is 198 miles, and from Bristol to Birmingham it is 88, so that this indomitable mail-guard achieved 286 miles through the snow without a halt. But what are we to think of the mail-inspector of 1836, who, on the arrival of a tired-out young man after a toilsome journey of 200 miles, started him off afresh on a ride of nearly 90 miles more?

And yet another winter adventure was experienced by Mr. Nobbs, when guard of the Cheltenham and Aberystwith mail-coach :

‘ We had left Gloucester, and all went on pretty well until we came to Radnor Forest, where we got caught in such a snowstorm that it was impossible to take the coach any further, so we left it. I took the mail-bags, and with the assistance of two shepherds made my way over the mountains. It took us five hours to get over to the other side to an inn at Llandewy. There we met the up mail-guard, Couldry, who took my guides back again. It was not many hours before the abandoned coach was completely covered with snow, and there it remained buried for a week. Well, the up guard, Couldry, fell down in the snow from exhaustion, and had to be carried by the two shepherds to the Forest Inn on the other side of the mountain. There he remained some days to recover himself. I had to proceed with my bags, so I got a chaise and pair from Penybont and another at Rhayader, but was unable to take that very far owing to the snow. There was nothing for it but to press

on again on foot, which I did for many miles, until I came to Llangerrig. There I found it was hopeless to think of going over Plinlimmon, and was informed that nothing had crossed all day, so I made up my mind to go round by way of Llanidloes, and a night I had of it! I was almost tired out, and benumbed with cold, which brought on a drowsiness I found it very hard to resist. If I had yielded to the feeling for an instant, I should not have been telling these tales now. When I got about eight miles from Aberystwith, I found myself becoming thoroughly exhausted, so I hired a car for the remainder of the journey, and fell fast asleep as soon as I got into it. On arriving at Aberystwith I was still sound asleep, and had to be carried to bed and a doctor sent for, who rubbed me for hours before he could get my blood into circulation again. I had then been exposed to that terrible weather for fifty hours. Next day I felt a good deal better, and started back for Gloucester, but had great difficulty in getting over the mountain. Again I had the honour of receiving a letter from the Postmaster-General, complimenting me on my zeal and energy in getting the mail over the mountain. Even when there was no snow, the wind on the top of Plinlimmon was often almost more than we could contend with. Once, indeed, it was so strong that it blew the coach completely over against a rock; but we soon got that right again, and always afterwards took the precaution of opening both the doors and tying them back, so that the wind might pass through



the coach. Altogether, I had good reason to remember Plinlimmon ; and, after all I have undergone in that country in the way of floods and snowstorms, it is little wonder if I am troubled with rheumatism now.'

In the winter of 1870-71 the snow was so deep in parts of Kent that I recollect, when revising the coast circuits and following the road from Dover to Deal, that the top of the cutting which had been made through the snowdrift was level with the roof of the fly which my colleagues occupied with me.

The winter of 1874-75 was also one of unusual rigour, and the mail-services suffered in proportion.

More memorable still was the snowstorm of January, 1881. The day had been cold and the sky of a dull leaden hue, but there was nothing to indicate the approach of a severe storm, when suddenly, almost without warning of any kind, dense snow-clouds seemed to descend bodily on London, and in an incredibly short space of time laid on the Metropolis so thick a carpet, that for a week afterwards it was as a beleaguered and entrenched city, so high were the snow mounds formed in restoring the thoroughfares and partially clearing the streets. All the country was snowed up, more or less. The view from the heights of Malvern (where I was attending a surveyors' meeting), over the great basin in which Worcester and Tewkesbury lie, with Gloucester on the edge of it, was the most beautiful—at least, the most striking—that has ever met my eye. One

great hollow, of the purest white, as far as the eye could reach, replaced the customary landscape.

What to do with the mails passed conjecture. To get them from the Post-Office to the railway-stations was almost an impossibility; it was quite an impossibility to despatch them when they were there.

The night mail trains for the North of England and Ireland, which should have been sent off from Euston Station on the 18th, did not leave until 10.30 a.m. on the 19th, because a deep snow-drift lay in the cutting between Harrow and Pinner. On the Great Western line the mails appointed to leave on the night of the 18th did not go until the night of the 19th. In fact, for at least 24 hours no traffic was possible on the Great Western main line.

On the Great Eastern line a block occurred between Cambridge and Liverpool Street, and the Great Eastern postal tender, with the mails from Norwich, Ely, etc., turned off near Shepreth and ran on the Great Northern line to King's Cross Station.

On the 20th the lines in general were fairly cleared of snow, but there were numerous failures on the part of mail-vans and carts to reach the stations in time for the mail-trains, not only in the country, but in London.

Again, on the nights of December 30 and 31, 1890, failures of junction were general throughout England owing to the very severe weather. On March 9, 1891, there was a great fall of snow, more particularly

in the South and West of England, which completely blocked up many of the lines for 24 hours.

On the night of March 10 the mail-train from the west of England was unable to run, owing to the line between Plymouth and Newton Abbott being closed with snow. The South-Western line between Plymouth and Exeter was also impassable, so that the mails could not be diverted to that route. The block continued on the 11th, and even on the 12th many cross-roads were impassable. The effects of this snowstorm were felt chiefly on the Great Western and South-Western lines.

There was another heavy fall of snow in the south-west of England on February 19, 1892, the line between Penzance and Truro being stopped for several hours. On the 20th there was a block on the North Devon line, and many of the roads in that district were not clear until the 22nd.

But of all the storms which have marked this century, it is probable that for extent and severity, and certainly for duration, none surpass the great snowstorm in Scotland, which in effect lasted throughout the whole of the month of January in the year 1867. It would compare with those of the memorable winter of 1814.

It began in the south. There was little snow, though the frost was severe, in Caithness; but about New Year's Day, between Newcastle-on-Tyne and Edinburgh, it fell heavily.

The down night mail on the west coast began to

feel its effects, and as early in the month as the 3rd reached Perth an hour or two after time, and so lost the connection with trains to the north. The mail-coach from Thurso missed the up mail-train at Bonar Bridge, and the general outlook began to be threatening. Snow-ploughs were brought into play on the 6th on the Highland line at Inverness, and a regular campaign against snow-drifts seemed impending, when suddenly, about the 7th, there was a general thaw, the roads and the railways got fairly clear, and the hopes of the department rose. But as suddenly the weather changed again for the worse, and snow fell with greater vigour than ever and with unchecked persistency.

Now set in a period of general obstruction, chiefly, however, in a region north of Perth, which only closed with the month.

Amongst a great number of officers, some in humble positions, whose zeal and devotion were abundantly displayed in efforts to restore postal communication over railways barely working, or not working at all, and over roads blocked and impassable, four persons were especially conspicuous—Mr. J. Warren, Surveyor of the Northern District of Scotland, who has retired from the service; one of his Assistant-Surveyors, Mr. G. Anson Yeld, now Surveyor of the South Midland District of England; Mr. T. Mawson, Inspector of Mails for Scotland, who has lately relinquished the postmastership of Sheffield; and his principal assistant, Mr. George

Fraser, an Inspecting Mail-Guard, at one time Post-master of Kingston-on-Thames, and now residing near Aberdeen.

Mr. Warren, as Surveyor, had the oversight of all the postal arrangements in the North of Scotland: Mr. Mawson, as Inspector, the responsibility of looking after the mail routes for the whole of that country.

Mr. Warren, from his headquarters at Aberdeen, took special charge, at this season of difficulty, of the north-east; Mr. Mawson of the centre, the far north, and the north-west. He went up to Forres. Both worked night and day.

Then the time came—about the 14th or 15th—when, some of the railways being impassable, a special effort had to be made to force the mails through by other means. There was no difficulty in procuring volunteers. Every officer saw his duty clearly, and was only too eager to do it.

Mr. Yeld undertook to carry forward the Banff and other mails by road to Inverurie and Huntley. He started from Aberdeen at noon on the 15th in a dog-cart, and got over the 16 miles to Inverurie by five o'clock. Then the snow thickened. Taking to a sledge, Mr. Yeld and his companion made for Insch. At Pitcaple the drifts were 7 feet deep. He must have stuck fast but for the cottagers, who helped to push on her Majesty's mails. At last, after six hours' work, over 10 miles of road, the town lights of Insch came into view. The mails were brought within 200 yards of the post-office, when the horses plunged

into a final snow-drift, broke the shaft of the sledge, and upset the vehicle, its occupants, and the bags into the drift. At Insch, north of the town, vast banks of snow blocked up the road, and men and horses, alike exhausted, being unable to proceed, lay in the town that night. Next morning, finding the road still impassable for wheels, Mr. Yeld started on foot, taking with him men to carry the bags; and so, walking alternately on the road, on the railway, and on the top of hedges, covered the 14 miles which lay before him, and, notwithstanding the fatigue and exposure of his toilsome journey, delivered the mails at five o'clock at night, on the 16th, at Huntley.

While Mr. Yeld was struggling in Aberdeenshire with snow-drifts and tramping over open lengths knee-deep in snow, Mr. George Fraser had embarked on an adventurous journey northwards with the mails for Wick and Thurso. He started from Inverness on the afternoon of the 14th by train, reaching Bonar Bridge, on the estuary of Dornoch Bay, where the Highland Railway at that time ended, about seven o'clock at night. Late as it was, Mr. Fraser went on at once with a dogcart and pair of horses, and snow-ploughs having opened the road, made Dornoch without great difficulty, and drove on towards Golspie, the snow being up to the knee on the level places and in others lying in banks from 4 to 6 feet high. The frost was intense. Still he pushed on, until within 4 miles of Golspie, when human persistence could do no more. For there the road is fenced

in between stone walls, forming a gigantic trench, which the snow had filled up to the depth of 6 or 8 feet.

Attempts to cut through the snow only served to deplete still further what slender stock of strength remained; the horses could work no longer; to go back was not to be thought of; to go forward was impossible. So Mr. Fraser had the horses unyoked, he abandoned the dogcart to its fate, put the bags on the horses' backs, and, boldly deserting the highway, struck across the fields to Golspie. There he arrived at half-past three o'clock in the morning, the 26 miles from Bonar Bridge to this point having taken exactly twelve hours to traverse. So much for pluck and endurance!

At Golspie the mail-guard, with the bags of a previous despatch from Inverness, had arrived overnight (14th). While Mr. Fraser rested to gather strength for fresh efforts, the former started at day-break on the 15th with the combined mails on seven saddle-horses, the frost being still intense, the roads to Thurso in a fearful condition, and in parts wholly impassable. The wind, happily, was moderating, and with it the most formidable feature of the storm—the drifting of the snow; but by the morning of the 16th the guard could get no further north than Helmsdale, only 17 miles beyond Golspie; and for a time the way to Thurso was stopped altogether.

But the storm of January, 1867, was not yet over. While Messrs. Yeld and Fraser were making heroic

efforts to carry belated mails through the blocks in Aberdeenshire and Caithness, Messrs. Warren and Mawson suddenly encountered formidable difficulties in the south. First, there was a block at Stonehaven and Laurencekirk; but the extensive resources of the Caledonian Railway were brought to bear upon it, and the mails were got through after some delay. The Great North of Scotland line from Aberdeen to Huntley was already stopped; it was more or less blocked for 20 miles. The Highland line was blocked from Forres eastwards to Keith. The first train that could get through was drawn by five engines; it brought three days' mails. The main line to Perth was kept open by the free use of steam-ploughs.

West of Forres—at Dava, a short 15 miles off, where the line goes through some deep cuttings and over a wild moor—nothing could pass; the cuttings were filled with snow to a depth of from 10 to 30 feet. When the mail-train was stopped, the passengers got shelter in a small farmhouse near at hand; but the steadfast guard in charge of the mails would not leave his van until relief was sent from Inverness. He suffered dreadfully from the cold, and, living only a short time after the block, paid for his bravery with his life.

So long as the gale which had sprung up continued, nothing could be done to open the line; but as soon as the weather moderated, the Highland Railway Company sent a large staff of men, who had to be supplied with provisions on the spot whilst the work

lasted. The block on the line to Aberdeen, notwithstanding its extent, was quickly removed, and all the mails for Inverness from the south and the north had to be sent that way for 9 or 10 days.

The Chester and Holyhead Railway has seen two serious interruptions of the mail-service. On August 20, 1868, the Irish down day mail train had just passed Abergele Station, when some railway trucks loaded with petroleum broke away from a siding, and, running down the incline with great velocity, came into collision with the engine of the approaching train. The ignition of the inflammable oil in the trucks caused by contact with the engine fire wrought terrible disaster. In a moment six or eight carriages were entirely enwrapped in flame and the densest smoke. Their destruction was rapid and complete. Only two or three carriages in the whole train escaped. The lamentable loss of life which resulted would have been greater still but for the exertions of Messrs. O. and W. Uniacke Townsend, of Dublin. One gentleman uncoupled the hindmost carriages, the other unlocked doors.

Mr. H. C. Silk, in charge of the mail-carriage, was seriously injured by the collision, but he valorously kept at his post until relieved. He was, however, permanently disabled, and was superannuated in December, 1869.

In the midst of tragedy the instinct of duty asserted itself; and the postmaster, mindful of the interests

of the public, came with all despatch to the scene of the disaster. He had provided himself with wax and string, and when Mr. Silk, sorely hurt, had been carefully housed in the Cambrian Hotel, he and his assistant collected the loose letters, and dispersed bags, and made up the mails as they best could, tied and sealed them, and put them in course of circulation.

The second block took place on Sunday, August 17, 1879. Excessive rain and high tides on the coast of North Wales occasioned floods, which swept over the Chester and Holyhead Railway, doing much damage to it in several places. The immediate effect was to delay the arrival of the London day mail, due in Dublin about 7 o'clock at night, until after 7 o'clock the next morning, and the London night mail, due in Dublin in the early morning, until after mid-day.

The line having been washed away, on the Chester side of Rhyl, an attempt was made to send the mails by the route through Denbigh; but a few miles from Chester the line was found to be blocked there also, the permanent way having been in part destroyed and the engine of the down day mail overturned. Then came tidings of further mishap at Aber, and later still of the falling in of the viaduct across the river at Llandulas, a little west of Abergele.

To replace rails and sleepers and repack the permanent way on the scene of the minor mishaps was an easy task to an organized service, but to restore a viaduct seventy yards long, which originally perhaps had taken a year to build, was another matter.

Now was seen what a great corporation, with capable officials and the resources of 1,800 miles of railway, could accomplish. In a trice Mr. F. Harrison, the company's manager, but then holding another post, Mr. G. P. Neele, then, as now, superintendent of the line, and Mr. Harry Footner, of Crewe, were on the spot. The district engineer, Mr. Smith, and the district superintendent, Mr. Wood, with others, quickly arrived also. The department sent down two experienced representatives, Mr. J. P. Lambert, now Surveyor of the South Wales district, and the late Mr. F. Nevill.

So high was the flood and so swollen the river, that for two days nothing could be done in the way of reparation, and the officials concerned with the traffic management spent the time, in concert with the department, in organizing and giving effect to arrangements for the transport of the mails, passengers, and luggage over some miles of road on each side of the gap. Then the high officials of the company showed their mettle. Construction gangs were set to work, and in the incredibly short space of five days a new low-level line was constructed, which descended by a steep gradient from the high-level of the main line, and, crossing the river by a temporary trestle-bridge, regained the high level by a corresponding slope. By 2 p.m., on Sunday, the 24th, a thoroughly solid and substantial railway, fit for the heaviest traffic, though with inclines of 1 foot in 23 feet, had been completed and opened for use. Mr. Lambert and Mr. Nevill

crossed by the first trains, up and down, respectively. What was fit for the mails, they thought, was fit for Post-Office servants.

But wonders did not cease. Llandulas Viaduct had not been many days in ruins before Crewe works, led on by Mr. Francis W. Webb, put out their strength. The late Sir George Findlay has described how in seven days they manufactured, rolled, and worked the steel required for 42 girders, each 32 feet long, for a new viaduct, together with the plates and angle-irons for each girder. In a month the old viaduct was replaced by a new one—of steel throughout—224 feet long, divided into seven spans, and standing 50 feet above the waterway.*

After the interruptions of the mail-service with the continent of Europe and other parts during the war (which, temporarily ending with the abdication of the Emperor Napoleon Bonaparte on April 14, 1814, broke out again on his escape from Elba, and lasted until July, 1815), the first disturbance which occurred was occasioned by the Crimean War, when twenty-eight of the finest, most powerful and best-equipped contract packets were withdrawn and used as transports. Some important services had to be suspended, and others were reduced in frequency.

Next came the Franco-German War of 1870. Then we had a great deal of trouble. The Indian mails

* 'An English Railway,' G. Findlay. Whittaker and Co. George Bell and Sons, London, 1890.

were our first concern. When the hostile forces approached Paris, these mails had to branch off at Amiens and go round by Tours; but soon the communications even with Amiens being threatened, there was nothing for it but to abandon the route of Marseilles altogether, and send them through Belgium and Germany, and by the Brenner Pass to Brindisi, 1,734 miles off. This is the origin of the use of a port on the Adriatic for the Indian, Australian and China mails; and although by altering the route, so as to use the Mont Cenis tunnel, the distance from London traversed by the mails has been reduced to 1,450 miles, Brindisi is still, and is likely to continue to be, the chief mail-port for the Far East.

On November 16, 1870, the Postmaster-General issued a notice with the startling heading, 'Open Letters for Paris. Transmission of, by Carrier Pigeon.' The use of carrier pigeons for the conveyance of express letters is, of course, as old as the hills, but their systematized employment possibly came before the public for the first time in the pigeon post during the latter part of the Franco-German War.

The notice went on to state that the Director-General of the French Post-Office had informed the department that a special despatch, by means of carrier pigeons, of correspondence addressed to Paris (which the German army had completely engirdled) had been established at Tours, the French seat of government, and that such despatch might be made

use of for brief letters or notes originating in the United Kingdom, and forwarded to Tours by post.

The letters were to be open, to contain not more than 20 words—to be plainly written in the French language—registered at a cost of 6d., and prepaid at the rate of 5d. a word. Thus a pigeon-post letter of 20 words cost 8s. 10d. As many as 1,234 letters were so forwarded to Tours between November 17, 1870, and January 28, 1871. How many got to their destination in Paris is not known. They were photographed at Tours on diminutive pieces of paper suitable for a pigeon's wing, and possibly were reproduced to full size on arrival in Paris.

'An Englishman in Paris,' describing scenes which took place in the French capital during the siege, says: 'The ascent of a balloon with its car, containing one or two, sometimes three, wicker cages of carrier pigeons, becomes a favourite spectacle with the Parisians, who would willingly see the departure of a dozen per day, for each departure means not only the conveyance of a budget of news from the besieged city to the provinces—it means the return of the winged messengers with perhaps hopeful tidings that the provinces are marching to the rescue.'

There is a pigeon post letter in the South Kensington Museum.

Calais, as the mail port, had to be given up when Amiens was about to fall into the hands of the Germans, and special trains and special steamers maintained communication by way of Newhaven and

Southampton and Dieppe, St. Malo and Cherbourg. It was an anxious time for the English Post-Office. There were yet to come the days of the Commune, when Paris was in flames!

Finally, I reach what at one time bade fair to be the most serious block of mail-communication which could well be conceived.

In 1892 the Great Western Railway Company converted the whole of the line from Exeter to Penzance, a distance of $133\frac{3}{4}$ miles, from a broad gauge of 7 feet to the universal narrow gauge of 4 feet $8\frac{1}{2}$ inches.

Two or three years previously the company had warned me, as Inspector-General of Mails, that the change was impending. We, at the Post-Office, looked forward with concern to at least a fortnight's dislocation of postal arrangements and public inconvenience.

Nothing of the kind happened. The railway company, by their general manager, engineer, superintendent of the line, and district officials, made arrangements so perfect that it is scarcely a figure of speech to say that the change was effected without anyone being the wiser. In two days—May 21 and 22—the work was accomplished.

Without going into the interesting details, it may be said that the whole process was a triumphant success and a feather—a whole plume, in fact—in the cap of the railway company's officials.

The arrangements concerted between the company and the Post-Office were simple and effective. In view of the stoppage of the Great Western main line

from Exeter to Penzance, the best points as temporary centres of collection and distribution had to be determined. These were speedily fixed upon as Exeter, Plymouth, Fowey and Falmouth. The London and South-Western Railway Company carried for the nonce the mails between Exeter and Plymouth; a special mail steamer plying to and from that port supplied Fowey and Falmouth, and mail-coaches, carts and four-horse breaks did the rest.

The post arrived late, as a matter of course, and was despatched early. But one of the disturbed days was a half-holiday (Saturday), and the next day being Sunday, commerce suffered but little and social life not at all. Mr. Edward Yeld, as acting Inspector-General of Mails, went down to the West to see the change through, and came back to the East with nothing to report but the successful accomplishment of the work.

This was the very last phase of that 'Battle of the Gauges' which fifty years ago rent the railway world in twain. Isambard Kingdom Brunel fought for the 7-foot gauge, and Robert Stephenson for the cheap and convenient 4 feet 8½ inches. Vast sums were spent in Parliament and elsewhere, and the so-called 'narrow gauge' won the day. When I last passed through Swindon there stood, inglorious in a siding, the famous broad-gauge mile-a-minute engines, Iron Duke and Lord of the Isles. Now what are they, in all probability? Scrap iron and a memory!

UOL 55



CHAPTER XIX.

THE PARCEL POST.

Looking back through the vista of years between the death of Sir Francis Freeling, in 1836, and the accession of Mr. Spencer Walpole to the secretarial chair, the four remarkable events which stand out conspicuously in postal history are the adoption of penny postage, under the Earl of Lichfield (an innovation, however, not altogether to his lordship's taste), the establishment of Post-Office Savings Banks in the reign of Lord Stanley of Alderley, the transfer of the telegraphs (initiated by the last-named nobleman, carried forward by the Duke of Montrose, and completed by the Marquis of Hartington), and Professor Fawcett's parcel post.

This new post, which came into operation on August 1, 1883, was the fruition of a long series of efforts to establish a service for the conveyance of light parcels by the Post-Office. A parcel post had been recommended by Sir Rowland Hill as far back as 1842.

On my appointment, in February, 1882, as In-

spector-General of Mails, almost the first direction given to me was to attend a conference with Professor Fawcett and Sir Arthur Blackwood. Mr. Fawcett spoke at length on the difficulties of the situation. Negotiations had long been pending, but had come to a deadlock. Between the views of the Government on the one side and the expectations of the railway companies on the other, there was an almost impassable gulf. Something of the kind had hindered Rowland Hill in his efforts to bring about a parcel post forty years before. The Government—rightly, as all must admit—opposed the idea of a partnership; the companies expected to share in the postage of all parcels, however carried. The proposed scheme seemed likely to be wrecked on the stocks. My views were in favour of going on with the project, but on altered lines. The original proposal was to have two limits of weight—two pounds and four pounds. The minimum seemed to me too high, the maximum too low. Negotiations were resumed on the basis of an enlarged scale, and a payment for only such parcels as the railways actually conveyed for the Post-Office. An agreement was ultimately arrived at, embodied in an Act of Parliament, and the parcel post became a reality.

The responsibility of framing a workable scheme having been laid on me by the Postmaster-General, my best plan, as soon as the Act for establishing the parcel post received the Royal Assent, seemed to be to start for a quiet spot familiar to me in Cornwall,

near the Lizard Point, as a place 'far from the madding crowd.' There a part of my official holiday was spent in drafting a circular letter of instructions to the chief officers of the department, explaining the provisions of the Act, and enunciating points for ultimate discussion and settlement. Then, in the early autumn, two colleagues went with me to the Continent to see how other European Post-Offices conducted their parcel post business.

It may appear at first sight a simple matter for a great carrying concern, having its agencies and machinery already engaged in carrying small packets, to engraft on its business the duty of transporting, at other rates of postage, larger packets. It was not so, however; not a step in the new direction could be said to be free from complication and difficulty.

Let an illustration make this clear. Postal parcels, for good reasons, are required to be brought to a post-office. The apertures of the letter-boxes are, for the most part, too small to admit of parcels being posted in them; and there is less risk under this rule of such articles being sent—a paper bag of ripe damsons, or a bottle of vegetable oil, for example—as would be harmful to letters. But in the event of a parcel, properly packed and prepaid, being posted after all in a letter-box, how then? Should it go on? If so, of what value the rule? Should it be stopped? What would be a sufficient excuse in the eyes of the public for so doing?

Again, prepayment is an essential condition of

cheap postage. In the case of a parcel left on the counter wholly unpaid, the course, perhaps, would be clear; but how with a parcel chargeable at the shilling rate, and left on the counter paid only, by pure inadvertence, to the extent of elevenpence?

These points, and a multitude of others, had to be foreseen, and provided for in advance by exhaustively-considered and intelligibly-framed rules and regulations.

In spite of all our care, unforeseen irregularities arose. The transmission of coin was prohibited. What, then, was to be done when new-minted sovereigns rolled out from a case of mince-pies?

The main difficulty, therefore, in establishing the parcel post, lay in the multiplicity of details which had to be anticipated and adjusted. As an instance, the best form of receptacle was a puzzle. In sacks the fragile parcels would be smashed; boxes would be too heavy, ordinary oval hampers wasteful of space.

Square baskets seemed best of all. How, again, to combine lightness with strength, ease of manipulation with security of contents—above all, economy with the best quality? Fifty thousand baskets at a couple of pounds apiece is not an insignificant item of outlay. Should the baskets be locked? The locks might be picked. Sealed? In what way? Once an ingenious colleague discovered, as he thought, an infallible method of securing a mail-bag. He took it in triumph to the Secretary. An expert was called in, who applauded the ingenuity of the contrivance, and

asked leave to keep the bag till next day. So into it, by way of enclosure, the Secretary put a blue navy book. The bag was then secured by the new method, sealed, and handed to the expert.

Next day, at a time named, the three met again. 'I give it up,' said the examiner. A just pride shone on the face of the inventor: the seal was intact. The Secretary cut the string to recover his blue navy book; he gave the bag a shake—out fell a red army list!

Where should carts be employed for delivery? Where should the work be done on foot? Where were new and more spacious offices wanted? at what towns would the old ones suffice? What about rules and regulations—for the public, the postmaster, the postman, the clerk? How, too, as to forms and methods of account? What funds should Parliament be asked to provide?

Thus was cut out for the Post-Office a year of work as active as, save and except that of the telegraph transfer, it had probably ever known. However, though we could not follow the sagacious advice which a highly-placed civil servant once gave me many years ago, 'Leave those letters alone, and they will answer themselves,' all problems, by dint of hard work, at last were settled.

It was not only in the Post-Office that energy was shown. The Office of Works had a surveyor, of admirable parts and ceaseless energy, who has been already mentioned. He had given a splendid proof

of his powers at the time of the transfer of the telegraphs. The reins of financial administration, owing to a happy turn in the phrases of the Telegraph Acts of Parliament, had then fallen somewhat on the backs of the postal steeds—in other words, the Post-Office had, or believed that it had, a tolerably free hand in making the requisite preparations.

Hence it said to Mr. Williams, 'Alter this office.' By next day the plan had been made, the builder instructed, the work begun. 'Alter that one.' The capable architect saw at a glance what was wanted: a new floor here, girders across there, a gallery flung out, a waste space taken in. 'There is no difficulty about it,' was his favourite phrase.

Mr. Williams built the new General Post-Office, which stands opposite the old one, and built it so well that storey has been added upon storey without materially defacing the original design.

When the parcel post was imminent, and there was no place at St. Martin's-le-Grand for assortment, the head of the buildings branch sent for Mr. Williams. He came, and a few words sufficed. Next day a hundred men set to work, dug out a vast pit in the Post-Office yard, and made a large, dry, spacious, and fairly-lighted office. When the parcel post began its work, Mr. Fawcett went down, walked about the place, handled the parcels, gave smiling encouragement and good words to all around. At every point the Office of Works rendered prompt and effective help.

From the first, the several managers of the railways co-operated in the most friendly way to make the new institution a success. The result, it is thought, has been highly beneficial both to the companies and the public.

All preparations having been made—parcel carts built, contracts arranged, and buildings and staff in readiness—the day for commencing the post was publicly announced.

‘Never before,’ said the *Daily Telegraph*, ‘did any commercial house leap all at once into so gigantic a concern, with 15,000 agencies, and thirty-five million possible customers in these three kingdoms; never before, it is thought, was a Government department put to so severe a test as that which, twelve days hence, will await the one over which Professor Fawcett presides.’

Although the term ‘Postmaster-General’ is usually understood to mean, not only an individual, but also the collective energies of the Post-Office, it is the fact that Mr. Fawcett took an active personal part in shaping the rules which governed the enterprise. He went very carefully through the book for the guidance of postmasters, which the late Mr. St. John Beaufort had drafted, and, weighing every rule, bade me make here and there an alteration. He was especially anxious that the rural postmen should not be overloaded, and I recollect that he recast more than once the phrases by which this end was to be assured.

In order to adjust expenses to income, it was

needful to estimate the postage which each parcel on the average would produce. The data to go upon were few. My calculation pointed to sixpence; a weightier authority declared for sevenpence. Suddenly the railway companies lowered their tariff of parcel charges, with the result that the light and cheap parcels passing through the post bore a larger proportion to the heavier and dearer parcels than had been expected, and so brought down the average postage. The actual yield of an average parcel has rarely exceeded $5\frac{1}{2}$ d.

That for the moment was a check to jubilation. A halfpenny—not to say three-halfpence—per parcel made a vast difference in profits. On the present average total of more than fifty millions of parcels the one would add £100,000 to the revenue, the other more than a quarter of a million pounds sterling. However, not discouraged, we buckled to, reducing expenses with one hand, and sparing no pains to make the post as effective and popular as possible with the other.

An indirect effect of the parcel post, by increasing the pressure on crowded offices, was fortuitously to bring about more liberal accommodation in London, for official ends, than the most sanguine could have anticipated.

For a hundred and one purposes, the cry on all sides for many years had been for room which could not be found. The introduction of the parcel post intensified the demand. There was, for example, a

limit to the addition of storeys above or excavated chambers below the General Post-Office.

In 1877 the fee simple of Cold Bath Fields Prison accrued to the State, and in 1885 changes of prison administration left the buildings without occupants and without a purpose. There were many claims for the appropriation of the site. The needs of the parcel post, the business of which in London had been greatly hampered for want of space, seemed to me more pressing than any others. Sir Arthur Blackwood had no rest from my urgent appeals for its acquisition by the Post-Office. He and the Postmaster-General listened and approved. The Treasury yielded to their representations, and the department got the prison. In 1888 the parcel post was transferred to the tread-wheel house, the money-order office to the prison chapel, the telegraph works in part to the Governor's house and other buildings, and the offices of the Controller of Postal Stores to the bakery and the cells.

Cold Bath Fields gave way to the more agreeable and not inaccurate title of Mount Pleasant, and new and stately buildings for the parcel post and the telegraphs now replace in part the old ones.

In August, 1887, a packet of MS. was for the moment lost in transit to or from its author. A glance into the letter-books of that year of the publishers of this work discloses the fact that the packet was *in error* sent by post, with the astounding result that someone had to pay £10 postage, and that

the MS. was well-nigh lost. The firm dipped their pen into the ink-pot with a vigour which I cannot but admire, although in doing so they hardly designed for the Post-Office a garland of roses :

‘ August 7th, 1887.

‘ DEAR SIRs,

‘ The temporary loss of Mr. Cooper’s MS., to which you allude in your letter of the 1st instant, was occasioned by the reprehensible carelessness of those to whose custody it was entrusted.

‘ By some blundering person the parcel, which should have been forwarded, as similar ones always are, by mail or other coach, *was actually put into the Post-Office*, and a charge incurred of £10 within a fraction.

‘ The Post-Office is no more the proper channel through which a packet of this kind should be sent, than it should be for the carriage of a bale of cotton.

‘ Yours, etc.’

This contrasts in a remarkable way with the experience of to-day, when several hundred MSS. a month come to the same firm, or go away by Letter, Book, or Parcel Post, and instead of being charged £10 each, bulky packets travel for only a few pence. Moreover, despite the very insufficient addresses often given by the owners of the MSS., the firm find, by a comparatively recent calculation, that only 1 in 4,150 postal packets goes astray.

Very similar has been the experience of Messrs. John Bell and Co., the well-known chemists, of 225, Oxford Street. They—as I gather from a letter which they were good enough to address to me—and chemists generally have found benefit in the parcel post, not alone in its cheapness and regularity, but in the fact that, unlike the letter and other posts, it admits glass bottles, if properly packed, for transmission. What with care on the part of the firms in packing, and care on the part of the Post-Office in handling, there has been, on the whole, a remarkable immunity from damage and loss in this mode of transit.

Perhaps the warmest testimony to the successful administration of the parcel post is to be found in *Kemp's Mercantile Gazette* of January, 1893. Excitement was rife at that date in trading circles, because of the incidence of new rates of charge sanctioned by Parliament for the conveyance of goods by railway. *Kemp's Gazette* took up the question of the carriage of parcels evidently with no preconceived idea of flattering the Post-Office, but with the object of finding the remedy for a grievance in reference to the conveyance of small packages and parcels weighing more than the parcel post limit.

‘The only effective remedy,’ said the *Gazette*, ‘will be found in a great extension of the parcel post. The success of this branch of the public service has proved that in the Post-Office we have an administrative organization which is simply unequalled anywhere, and which is capable of almost indefinite expansion,

and of general application. By means of its existing machinery the Post-Office could, by the mere addition of more labour, carry well-nigh any number of parcels. No other carriers can possibly have such a complete set of machinery always in working order, and maintained at such a state of efficiency through its use for letters.'

Excellent clients are found in the great seedsmen. Messrs. Carter, of Holborn, and Messrs. Sutton and Sons, of Reading, probably lead the van—load the van would perhaps be as appropriate a simile—in the number of seed parcels and descriptive catalogues posted. To receive 70,000 of such parcels is one amongst the wondrous experiences of Mount Pleasant at Christmas time.

On August 1, 1893, the parcel post completed its first decade. The public press dwelt on the subject, enlarging for the most part on the substantial advantages which had accrued to the public from Mr. Fawcett's successful legislation, and praising the smooth action of the post. In the year ended March, 1894, fifty-four millions of postal parcels were delivered in the United Kingdom.

In ten complete years about 350 millions of parcels have been carried. It is computed that they weighed nearly half a million of tons. The gross revenue has risen from £245,900 to £1,151,000, and the part of it retained by the Post-Office from £228,000 to £612,000 per annum.

There has been extended to parcels the same plan

of sorting in trains in motion that has long been applied to letters. But the exchanging apparatus cannot be brought into play. The weight to be flung out and taken in would smash every known contrivance to pieces.

Of course, Christmas is the time when parcel work most strikes the beholder with a sense of its magnitude. No writer has yet done justice to the appearance of Crewe Junction with its accumulation of parcel post receptacles, say, between ten at night and two in the morning for a few days before Christmas. Mountains of parcel baskets blockade the platforms of that tremendous station; but the immense traffic in passengers and their luggage is, of course, the main feature.

Mount Pleasant is also worth seeing at the height of its Christmas pressure. Great masses of parcel mails melt away and appear again, the supply being apparently inexhaustible. The spacious floor is covered by parcel-fittings and parcels in various stages of assortment, alpine ranges of inward baskets await sortation, a cordillera of receptacles is ready for despatch. The electric-light adds to the picturesqueness of the scene. 'It is a magnificent sight,' writes an official, justly enthusiastic, 'from the point of view of those who have rarely known what it is to get sufficient space for the heavy parcel work.'

The Customs branch established at Mount Pleasant knows no peace. Diamonds thrust up hollow walking-sticks, proof spirit passing as an innocent perfume,

tobacco here, there, and everywhere ; dutiable goods declared, not declared, disguised and misdescribed ; merchandise trade-marks imitated, trickery, fraud, and blunders of all kinds have to be dealt with. A long-suffering race are the officials of her Majesty's Customs. The Post-Office owes them not a little for cordial co-operation, and much cheerful endurance of unavoidable inconveniences. From the first the present Secretary of Customs, Mr. R. T. Prowse, brought his wide experience to bear on difficult points, and his lieutenant, Mr. Rolt, gave us efficient aid.

Some attempt has been made in a previous chapter to record the success of the chief labourers in the telegraph transfer ; it is renewed as regards those who were foremost in establishing the new organization.

The parcel post was launched under the personal guidance of Mr. Fawcett, with the warm sympathy of Sir A. Blackwood, and by the united efforts of nearly all the heads of departments. The Solicitor of the Post-Office, Mr. (now Sir) Robert Hunter, took an active and prominent part, and it would be impossible to overlook the services of the successive Controllers of the London postal branch, Messrs. Jeffery, Tombs, and Badcock. The Surveyors, led by their Chairman, the late Mr. W. J. Godby, and the talented Postmaster of Manchester, the late Mr. J. St. L. Beaufort, and backed up by Messrs. H. L. Cresswell and Reginald Guinness, made difficulties fly as chaff blown by the wind.

Financial details were of high importance. The Receiver and Accountant-General regulated innumerable payments, and was accessible for guidance and advice. Parcels might be lost: Mr. W. H. Muloch and Mr. G. R. Smith were on the alert. Scotland had to be thought of: Mr. A. M. Cunyng-hame was at hand. Ireland could not be forgotten, for Mr. R. O. Anderson, Mr. W. W. Barnard, and the late Mr. John Allen were to the fore.

Every man in the home mails branch rallied to the work, shrinking from no labour, not even from the toilsome caulking necessary to fit the ship to float. As in the case of the transfer of the telegraphs, so with the inception of the parcel post, wherever there was work to be done none spared effort.

CHAPTER XX.

THE ROAD REGAINED.

THE Parcel Post Act of 1882 secured to the railway companies 55 per cent. of the inland postage on all parcels tendered to them by the Post-Office for conveyance. A lump sum is paid over by the latter, which the former apportion on a fixed principle.

It would be to no purpose—the settlement arrived at and sanctioned by Parliament being the result of negotiations in which many attendant conditions had to be borne in mind—to examine the question whether the allocation of 55 per cent. of the postage to the companies and 45 per cent. to the Post-Office—6½d. out of the shilling to the one, and 5½d. to the other—equitably represents the relative cost of the services which the parties to the bargain respectively perform. Else it might be argued that the main expense of carrying a postal parcel to destination lies in collection and delivery, and that a larger rather than a smaller payment is due in respect of those services than for mere haulage by railway.

Be that as it may, the bargain having been struck

and ratified, the Post-Office set to work to make it beneficial to the State.

The postage of parcels wholly borne by road is retained by the Postmaster-General unabated, and he was bound to consider, in the interests of the revenue, where he could with advantage to the public extend his road services, and by means of them collect and convey parcels.

However great may be the care exercised in transferring parcel receptacles from one point to another, the risk of damage from rough handling necessarily increases with the number of transfers which have to be made. If a parcel mail can be put into a van at the office-door of despatch, and not rehandled until it reaches the office of destination, two transfers take the place of four at least (possibly of five or six), and the risk is reduced to a minimum. Greater security from possible injury is therefore one advantage of conveyance by road.

There is gain in other ways. The mails are under one control throughout. There is the possibility of sending supplementary local mails, both of letters and parcels, by a road conveyance; there may be a later posting of parcels, and there is, under given circumstances, a saving of public money.

It follows that when the parcel mails can be sent by road in sufficient time for early delivery, and at no greater cost than by railway, there are *prima facie* advantages in so conveying them. Hence parcel mail-coaches came into vogue. When a well-

appointed parcel-coach, lamps flashing and horn sounding, passes on its course, the spectator catches a glimpse of the bustle of the road in the far-away past.

The trial trip of the first experimental coach was highly interesting. Heavily laden, perfectly horsed, and admirably driven, it excited admiration all along the road, from its starting-point in the Post-Office yard in the forenoon to its arrival in Brighton at night. The blunderbuss on the roof, the last of the mail-guards on his perch, the mail-bags, the prancing bays, the strident horn, were alike accepted by every spectator as entirely congenial.

The permanent service began on June 1, 1887, with the night mail coach to Brighton, and its establishment, because of the novelty, and perhaps because British taste instinctively approves of four horses running at speed on a well-metalled highway, excited widespread interest.

Equally exciting was the start two or three years later of the Liverpool and Manchester three-horse-abreast parcel mail-van; at a later date still of the London and Oxford four-horse mail-coach, and, latest of all, of the mail-coach for Hatfield and Bedford.

Descriptions of a trip with the Brighton coach repeatedly appeared in the public press, and as recently as August 29, 1892, an effective account was given by the *Daily News*, of which some extracts are subjoined :

‘Between nine and ten o’clock at night the parcels

post depôt at London Bridge recalls many scenes of old coaching days. The enormous business transacted through the chief depôt in Denman Street has increased more than 86 per cent. within the last six years, and a good proportion of the parcels transferred through that office every day—amounting to so many thousands that the number would seem fabulous if put into figures—is sent by coach along the old mail-roads to Brighton, Tunbridge Wells, Ipswich, Oxford, Chatham and Watford.

‘When the hour for coaches to start draws near, a whole army of mail guards and porters may be seen loading the vehicles rapidly, but their work is so admirably organized that there is neither noise nor confusion.

‘Timed to start at a quarter to ten, the Brighton coach has all its “top hamper” for the through journey strapped down under tarpaulin long before then, and only small packages for Croydon remain to be put in at the last minute. All the yard is ablaze with light from its five powerful lamps.

‘As the neighbouring church clocks begin to chime the three-quarters, Braithwaite, the guard, with a loaded revolver at his belt and a sword-bayonet concealed beneath the ample skirt of an overcoat, takes his place beside the coachman. “All ready, sir?” asks Fred Earles. “All right; good-night!” replies the depôt superintendent, and to the accompaniment of that cheery sound of “Good-night” from every bystander, we dash at speed into the crowded

thoroughfares, where Earles threads his way through a maze of traffic with workmanlike dexterity.

‘Over Streatham Common and down Norbury Hill we speed, and in exactly an hour from the time of leaving London Bridge we are clattering through the streets of Croydon. Darkness limits our view of the beautiful country beyond to a pale gleam that marks the road across Earlswood Common, and soon the panting team draws up by The Chequers, at Horley, having kept time to a minute. Here we find another coach waiting under the wide-spreading elm-tree. It has brought the Brighton parcels, and the coachman who has driven us so far will take charge of it back to London.

‘At Slough Green, while horses are being changed, we have time for a refreshing cup of tea, which the ostler has ready in a cosy kitchen. Almost reluctantly one quits the welcome warmth to spend two hours more on the box seat. In the winding, picturesque old streets of Cuckfield mail-carts are waiting for us. Their drivers speak with muffled voices as if fearful to disturb the silence of a sleeping town.

‘At Friar’s Oak, where the coach stops for its last change of horses, other mail-carts are waiting under the trees. As we quit this the flush of dawn is beginning to show above dark ridges eastwards, and the keen sea-breeze cuts more shrewdly.

‘At a quarter to five we enter the station yard at Brighton, and the pleasant night drive by mail-coach is at an end.’

The late Mr. Raikes attached much importance to the guards of the parcel mail-coaches being efficiently armed, and each guard is not only properly instructed in the use of firearms, but is so equipped as to be a formidable adversary in case of attack, even when cartridges may fail. Happily, the High Constables of the country so effectively patrol the roads by means of the mounted police that no seriously meant assault with intent to rob the parcel mail—though there have been one or two mock attacks—has come to my knowledge. But Mr. Raikes may have had in his mind the fact that in the early part of the century robberies of the mails were rife, and that once so daring and extensive was the theft that the reward offered was as much as £1,000. Nor was he less convinced that mail-carts, vans and coaches should be well lighted for night work. When Postmaster-General, he gave special attention to this point, and insisted on ample lighting forming part of the conditions of riding work contracts. The Brighton and other parcel coaches carry with them along the road abundant light. In fact, when the up and down coaches stand together at Horley, the little inn is almost as brilliantly illuminated as at noon-day.

The night parcel coach surpasses the old time coach not only in the number, but also in the power, of its lamps. Five light the outside front—two being 9½-inch cone and three 7-inch cone lamps; two more lamps light the inside, and are fixed with reflectors so that they may be seen from without. The guard

carries a hand-lamp. Thus, eight lamps in all produce a flood of light which makes clear the road ahead, and leaves, comet-like, a shining track in rear.

A parcel coach, capable of carrying a ton of parcels, weighs a ton itself, and so is about 3 hundredweight heavier than a model coach of the thirties.

The experiment of sending parcels along the road having been successful in the case of the Brighton coach, it was carried further, and at the present moment mails are despatched according to the following list :

PARCEL MAIL-COACHES NOW START OUT OF LONDON AS FOLLOWS:

Name of Coach.	Starting-point and Times of Departure.	Destination and Times of Arrival.	Aver. Max. Weight Carried.	Number of Horses.	Distances.
					Miles.
London and Brighton (via Redhill)	London Bridge 9.45 p.m. Brighton 9.20 p.m.	Brighton 4.45 a.m. Mount Pleasant 4.50 a.m.	Cwt. 35	4	52
London and Oxford (via Reading)	Paddington 10.30 p.m. Oxford 6.10 p.m.	Oxford 8.5 a.m. Paddington 3.45 a.m.	25	4 London to Reading 2 Reading to Oxford	67
London and Colchester	Mount Pleasant 9.45 p.m. Colchester 9.30 p.m.	Colchester 5.0 a.m. Mount Pleasant 4.30 a.m.	25	4	53½
London and Chatham	Mount Pleasant 11.5 p.m. Chatham 11.35 p.m.	Chatham 4.25 a.m. Mount Pleasant 4.53 a.m.	18	3	33½
London and Tunbridge Wells	London Bridge 12.0 midnight Tunbridge Wells 9.50 p.m.	Tunbridge Wells 4.45 a.m. London Bridge 2.35 a.m.	17	3	35½
London and Windsor (via Slough — continued by mail-cart)	Paddington 12.0 midnight Slough 12.0 midnight	Slough 3.15 a.m. Paddington 3.15 a.m.	25	3	20½
London and Watford (cart to St. Albans)	Watford 9.25 p.m. Euston 12.0 midnight	Euston 11.40 p.m. Watford 2.8 a.m.	18	3	16
London and Bedford (via Barnet)	Mount Pleasant 9.45 p.m. Bedford 9.35 p.m.	Bedford 4.40 a.m. Mount Pleasant 4.30 a.m.	25	3 London to Hitchin 2 Hitchin to Bedford	52
London and Broxbourne (pair-horse van)	Mount Pleasant 11.35 p.m. Broxbourne Station (Connects with Broxbourne Station and Hertford mail-cart.) 1.55 a.m.	Broxbourne Station 1.45 a.m. Mount Pleasant 4.15 a.m.	7	2	17

All parcel coaches are timed to run at an average speed of 8 miles an hour.

To this list may be added the Liverpool and Manchester night mail parcel coach, which runs between the two cities ($36\frac{1}{2}$ miles) in $5\frac{1}{4}$ hours. The horses are changed at Holling Green and Prescott.

The mail-coaches of the eighties were no more exempt from the perils of the road (highwaymen excepted) and the hindrances of storm and flood than their predecessors of the thirties.

The Brighton coach, soon after the commencement of the service, was, during the prevalence of a dense fog, driven into a swamp by the side of the road, and horses had to be hired to extricate it. Again, on the night of December 22, 1891, during another thick fog, the coach was driven into a pond at Thornton Heath. Its four horses jumped over a wall—3 feet high and 15 feet from the edge of the pond—which divides the deep water from the shallow. The experienced coachman was driving at a rapid pace, and mistook a lamp which is on the wall in the centre of the pond for one by the roadside. The coach was not upset, but both the coachman (whose shoulder was dislocated) and the guard had to get down into the water to release the horses. The guard borrowed a fresh team to pull the coach out of the pond, and afterwards drove it himself on to London. By the time he reached the depôt the clothes of this good servant of the Crown were frozen hard. Yet he took no harm. Like Horatius, his body 'was borne up bravely by the stout heart within.' The Postmaster-

General awarded the men a gratuity of £5 apiece for their devotion to duty.

On the night of March 9, 1891, both the up and down Brighton coaches got into deep snowdrifts at Hand Cross, and had to be dug out. The down Oxford coach was also snowed up for many hours near Dorchester (Oxon) on the same night. Again, on the night of January 4, 1894, the Tunbridge Wells coaches, both up and down, stuck fast in a snow-drift at Pol Hill, near Halstead, Kent, and twelve hours passed before they could be got out. The guards borrowed shovels, but could make little head-way beyond opening a space around the horses and the vehicles. Subsequently the local authorities sent a gang of men to clear the road, and the vehicles were able to resume their journeys early in the afternoon. The coachmen and guards had been out in the snow all night.

There have been other catastrophes. The Oxford coach, between Taplow and Maidenhead, got off the crown of the road into the gutter in September, 1890, fog making driving difficult; the top load was heavy, and the coach was overturned. Assistance being obtained, it was unloaded, raised, and loaded up again, and the journey was resumed after a delay of three hours. In the following February the coach fell over into a ditch and was damaged. It arrived at Oxford at 9.35 p.m., 13½ hours late. Here again, happily, the officials escaped injury. For a third time the Oxford coach was overturned

near Slough, on August 8, 1891, owing to a market-waggon being on the wrong side of the road. The waggoner (who was probably asleep) when hailed pulled his vehicle right across the road, and the mail coachman was obliged to run the coach on to a sloping green on the near side, as the lesser of two formidable risks. This episode especially recalls the perils of the highway in the old coaching days.

On October 11, 1890, the Chelmsford coach, which has since been extended to Colchester, ran into a ditch at Margaretting, 4 miles from Chelmsford, owing to fog, and fell against the hedge, which alone prevented it from going right over. The driver rode into Chelmsford on one of the mail-horses and brought the Ipswich coach to the spot. The load was transferred, and arrived at Colchester only four hours late. The driver and guard were uninjured. The down Chatham coach met with a mishap near Eltham on February 6, 1891. The road, which is extremely narrow, is skirted by a very dangerous ditch. The off-side wheels went into the ditch, and the coach had to be unloaded before it could be got out. This was done, after $2\frac{1}{4}$ hours' delay. The ditch, I am glad to be able to say, for the comfort of future travellers by this road, has since been covered in.

A spring of the down Oxford coach broke on one occasion, and as the load carried was much heavier than that on the up journey, the guards, with ready wit, exchanged the mails at the meeting-place, so that the vehicle with the damaged spring returned

to London with the light load, and the sound one went on to Oxford.

This reminds me of an early experience of mine in Ireland, when driving from Roches Point to catch the railway train, many miles away. The speed of the horse was failing; another car with a fresh, high-stepping gray was seen approaching, two ladies being the passengers. At a signal both cars stopped and turned round. The ladies were requested to dismount and loads were exchanged. With shameless effrontery my companion and I nimbly sprang on to the vacated car, drove swiftly to the railway, and caught our train.

Christmas pressure tasks the coaches heavily, even if the roads be clear of snow. They carry in the festive week as many as ninety thousand parcels. While, on a comparison of the first year's earnings with the tenth year's, the general increase of parcel post revenue will be found to have been about threefold, the earnings of this particular branch of the service have increased fourfold.

CHAPTER XXI.

THE OUTER WORLD.

IN the palmy days, when the Post-Office stood possessed, in its own right, of a fleet of ocean-going mail-packets—*i.e.*, before the ruthless hands of 1823 and 1837 had swept away its responsible and sometimes adventurous work on the high seas—that division of the secretariat which managed the naval business was appropriately named the Packet Branch.

So it continued to be styled, even though it had no packets to manage, until a committee of revision in the year 1854 renamed it more accurately the Foreign and Colonial Branch. To one relic of old times, however, the branch manfully held on, and, the work of Lords Liverpool and Melville in the past and committees of revision in modern days notwithstanding, adheres to still. All its choicest papers are tied up in numbered bundles and neatly labelled 'Packet Minutes.'

In my days the arrival of the West Indian mail or the overland mail from India and China set the Foreign and Colonial Branch in a ferment. Despatches

came in by the score from Jamaica, Demerara, Barbadoes; from Ceylon, the Straits Settlements, and Hong Kong, smelling in the latter case of the seawater in the bilges and of spices and lacquer and every Oriental perfume which the hot sun in the Red Sea could bring out of the cargo; while those from the West came with a flavour perhaps of some innocent aromatic gum, or, it might be, of yellow fever.

We had in the branch two admirable chiefs who revelled in this pressure of work. Once, perhaps, a word in season had ruffled our spirits, or possibly *trop de zèle* had called for a salutary check; any way, we—the understrappers—had occasion for reprisals, and planned a subtle revenge. This was nothing less than that the two unimpeachable chiefs should be made to give contradictory orders.

‘Mr. A.,’ began the ringleader, ‘the agent on the Orinoco asks for a new dated stamp. Shall we tell Mr. Bokenham to send him one?’

‘Certainly not. A stamp on a South American river ought to last for a century.’

We bided our time until Mr. A.’s back was turned, and Mr. Z. was alone. Then:

‘Mr. Z., the agent on the Orinoco asks for a new dated stamp. A stamp on a South American river ought to last for a century. Shall we refuse?’

‘Certainly not. What has a river to do with a stamp? If he wants one, tell Bokenham to send it.’

As to the Eastern possessions, the despatch of the 'overland' mail *viâ* Marseilles, four times a month, twice to Calcutta and twice to Bombay, was the great event.

Next in importance was the departure on the 2nd and 17th of the West India mail-packets, which sailed then, as they sail now, from Southampton. They made for the Danish island of St. Thomas, from whence they spread themselves out twice a month (a few not so often) like the blades of a fan—to Bermuda and Halifax; to Hayti and Cuba; as far up in the Gulf as Vera Cruz and Tampico; to Trinidad and Barbadoes; to the Windward Islands, the Leeward Islands, and Demerara. At a good eight or ten knots an hour these well-found steamships were constantly ploughing the waves.

From the outward Southampton steamer were transferred to other packets the mails for Jamaica and Darien's Isthmus of Panama, thus supplying the metropolis of the West Indies and the Pacific ports with their European correspondence.

The Post-Office maintained a Surveyor for the island of Jamaica, and a Surveyor for the West Indies, the latter being generally stationed at St. Thomas. Their function was to travel incessantly here and there, to keep all the island posts in good order, and effect a general supervision.

Mr. John Kains was the chief Surveyor in my early years, and Mr. R. M. Perring, lately at the head of the south-eastern district of England, surveyed Jamaica.

The last of the West Indian Surveyors was Mr. C. Bennett, who until quite lately held office at home as postmaster of Exeter.

Shortly before my time, the posts in Nova Scotia, which had been under Imperial control, were handed over to the Colonial Government; and towards 1859 attention began to be turned to Eastern waters and the West Indies, with the view to the Home Administration relinquishing what it had still in its hands. It was borne in on the mind of the department that the colonies might be able and willing to look after their own posts just as well as, and a good deal more cheaply than, we could. So, in 1859, Mr. Anthony Trollope, the novelist, a Surveyor of the department, was sent out to the West Indies to give effect to this policy—at all events, to draw up a scheme of transfer. His plans were approved, and the control of the colonial posts was relinquished by the General Post-Office. Mr. Trollope's interesting book, '*The West Indies and the Spanish Main*,' was an outcome of this journey.

My colleague of many years, Mr. E. H. Rea, C.M.G., went out in November, 1866, to the China Seas to arrange a similar transfer of agencies and posts dependent on Hong Kong, which were much too distant to be effectively managed from London.

It was not an easy task, as the relations between functionaries under the Foreign Office and those under the Colonial Office had to be adjusted, and the Postmaster-General's own people turned over to


colonial control. However, tact and experience carried the day.

Soon there were only left the posts of Gibraltar and Malta, and these were eventually transferred; so the Imperial Post-Office has now no colonial officials at all.

Then came an important change in the management of foreign and colonial business. Up to 1874 all foreign postages had been settled by treaty or convention—one for each State—all colonial postages by negotiation with the local government.

There had long been, within my own knowledge, sustained effort at the Post-Office, urged on chiefly by Mr. Frederic Hill, to cheapen, if not to render uniform, the postage of letters to the continent of Europe. His aim, too, in fixing rates to the colonies and elsewhere beyond sea, was to have regard to the cost of conveyance. Sometimes he was successful; sometimes timidity at home or obstacles abroad hindered him. At any rate, the official mind was being prepared for change of some sort. It came at last.

The impulse reached the Old World from the New. Mr. Kasson, of the United States Post-Office, who was, I think, First Assistant-Postmaster-General, proposed that there should be held at Paris a Postal Congress of all the nationalities, to lay the basis of a general postal union. If in a sober record such a phrase is permissible, I would say the idea 'caught on.' France, Germany, all the great States, and most



of the minor ones, readily assented. The British Post-Office, needless to say, did not hang back, though it must be owned that while it sent Mr. Hill as the Imperial delegate, and with him as secretary Mr. E. H. Rea, it approached the subject of uniform postage with much caution. Great interests and large revenues might be jeopardized by hasty conclusions; it was right to be circumspect.

Probably, next to the United States, Germany was the readiest to advance. Dr. Stephan, the head of the German Post-Office, warmly sympathized with Mr. Kasson's principles. This astute administrator, since ennobled, still retains his important position. At the head of the French Post-Office was Monsieur Vandal, whose name was long held in high esteem at St. Martin's-le-Grand. He summoned the Congress which met under his presidency at Paris in May, 1863. Germany, as it felicitously happened, had already formed a kind of postal Bund within the States of the North German Confederation, so here, at least, was a basis of discussion. Years, however, passed before the deliberations of the Congress bore fruit. Governments which had to sacrifice revenue were in no mood to do so; those who had little to lose had nothing to offer in the way of reduced transit rates. Still, the seed was sown.

Dr. Stephan, as Uncle Remus would observe, 'lay low' awhile. Then, probably on his motion, Herr Höhn, of the Swiss Post-Office, summoned in 1874 a new Congress to meet at Berne, which resulted in

the adoption of the 2½d. rate of postage and in the inclusion within an international agreement of all European Post-Offices, and those of Egypt and the United States. Here, at last, was the General Postal Union. Mr. William James Page and Mr. Alan Maclean were the delegates sent from St. Martin's-le-Grand. The new Convention came into force on January 1, 1875.

And there was yet another Congress at Paris. M. Vandal had by this time been made a senator, and the new French Postmaster-General, M. Cochery, guided the ship. The international agreement was renamed the Universal Postal Union, so admitting to its provisions all who chose to enter.

Whether England, which now, as part of the bargain, does so much for nothing of the carrying of the world's letters, has on the whole profited pecuniarily in a postal sense, may be matter of opinion, but of the collective benefits of this good and great work there can be, I should say, little question.

For a time, however, strange anomalies arose. We conveyed foreign letters by our own ships to our own possessions for less money than was charged for the letters of the British taxpayer. We collected a penny for an open inland communication if of the nature of a letter, carried, it might be, only from Dover to Deal, but we delivered, even in remote parts, the same sort of foreign packet, prepaid only a halfpenny. We delivered and re-delivered and re-sent abroad for nothing a foreign letter, but charged our good

patrons, the British public, double postage whenever we had the chance of handling an inland letter re-directed from one village to another. However, all came right in time.

On the United Kingdom and France agreeing to be parties to this new International Convention, old postal treaties between the two countries became obsolete, and instead of the letter-bill of the French mail being a marvel of complexity, because of the varieties of postage assessable on foreign letters, its intricacy vanished. No more need for negotiations to be opened with France or Belgium, with Prussia and Austria, or Sardinia and the States of the Church, before the postage could be reduced between London and Rome; no more haggling with intermediate countries for closed mails and altered transit rates. Our great Book of Conventions might have gone into the waste-paper basket, though as a relic of other days it is still a prized heirloom.

Relieved of much troublesome work, the Foreign and Colonial Branch struck out new lines. It arranged for the exchange of money orders with all the world. It brought about a weekly mail, not only to India, but also to Australia; for the monthly service in forty-two days to the Cape of Good Hope, it substituted the wonderful time-table of a mail once a week in seventeen or eighteen days. It contracted to pay for the use of the North American mail-packets no longer by a subsidy, but according to the weight of the mails.

Although the exchange of postal parcels with places abroad did not commence until two years after the establishment of the inland parcel post, the subject had occupied attention from a much earlier period, and the delay, though freely attributed to departmental inertness, had really its origin in causes which the Post-Office could not control.

As far back as 1878—at the Postal Congress held at Paris—an international exchange of small parcels had been proposed. Most of the delegates were in its favour, although Great Britain could not assent, because it had at that time no inland parcel post of its own.

In 1880 a special Postal Conference was held at Paris further to examine the question. By that time an inland parcel post in the United Kingdom was under consideration. The Secretary of the Post-Office himself, the late Sir Arthur (then Mr.) Blackwood, the late Mr. Benthall (my predecessor), and Mr. Buxton Forman, now Assistant-Secretary in charge of foreign and colonial business, attended as delegates and took part in drawing up an International Parcel Post Convention.

But the Convention could not even be signed, much less ratified by Great Britain, because it was not until 1882 that the Bill promoted in Parliament for the establishment of a parcel post in this country became law. Even then the Postmaster-General could not sanction it without the consent of the Treasury, nor, indeed, is it signed to this day. It was, however, intended from the first, as Professor Fawcett had

declared, to link the inland parcel post with the international system as soon as possible, though we contemplated a simpler and perhaps more rapid system of inland collection and delivery than obtains on the Continent. As a preliminary step, Mr. Fawcett, in the autumn of 1882, desired Mr. Jeffery, Mr. Buxton Forman, and myself to visit Germany, Belgium, Holland, and France, and collect information.

Nothing could be more kind and hospitable than our reception abroad, especially in Berlin, where Herr G. A. Sachse (now, by favour of the German Emperor, Wirtlicher Geheimer Rath, and 'Excellenz') at the instance of Herr von Stephan, was unremitting in his polite attentions. A carriage was placed at our disposal, we were taken over the palace at Potsdam, and even the opera changed its piece to 'Lohengrin' to please us.

Hard work, rapid travelling, and long journeys notwithstanding, no immediate action in setting up an international parcel post followed our return.

Very naturally, the Treasury wished to be satisfied with the progress of the inland post before sanctioning a new departure. But the public did not appreciate this prudent hesitation; and, as is usual in such cases, the Post-Office, which was only too eager to get on, had to accept criticism *sub silentio*. However, in November, 1884, we were allowed to go ahead. Even then there were difficulties. The International Convention was not well suited to British requirements. We wished to exchange light

parcels at a lower rate of postage than that chargeable on heavy ones. The Convention prescribed a uniform rate. There were other objections. Ultimately it was decided to proceed by separate agreements with each State of the Continent.

Accordingly, with nearly every country, parcels under three pounds in weight can be exchanged at lower postage than that paid on parcels between three pounds and seven pounds (one and three kilograms). There can be little doubt that the cheaper rate for the light parcels, which constitute about 50 per cent. of the whole, has greatly aided the development of the post.

The next step was a parcel post with India. The Peninsular and Oriental Steam Navigation Company had long had an arrangement with the Indian Post-Office, under which it collected and distributed Indian parcels in this country, as well as conveyed them between London and Bombay. By an agreement negotiated at St. Martin's-le-Grand with that efficient Indian official, Mr. H. E. M. James, the Imperial Post-Office undertook the inland service in the case of such of these parcels as came within the rules applicable to postal parcels, and agreed to pay the packet company a separate rate for the sea conveyance. A good parcel post with India was thus established.

The Indian Post-Office is a branch of Government to which one has always been insensibly drawn by the prompt and intelligent hold it takes of official

questions. Such, at all events, has been my experience ; and although Anglo-Indian administration rather lends itself to forms, indents, and similar devices, yet the Indian Post-Office is singularly free—more so, perhaps, than we are at home—from anything approaching the obstruction of routine or pedantic insistence on the letter rather than the spirit of an agreement. Hence, both the cordial co-operation of the delegate, Mr. James, and the high administrative qualities of the chief, Mr. Fanshawe, are not easily forgotten.

As an instance of the enterprise of the Indian Post-Office, it may be mentioned that drugs, as well as stamps, can be obtained at local post-offices. In a single year 427 lb. of quinine have been sold by this agency in pice-packets to a public which dwells perhaps on the jungle border or in the marsh lands many miles from the nearest medical man.

Simultaneously with the parcel post to India there were commenced similar services to Egypt, where former colleagues of mine—men of marked ability, who have since risen to distinction in the Egyptian service—Messrs. Halton and Caillard, were in office. The parcel post was also extended to Gibraltar. The first mails sent abroad were despatched on July 7, 1885. The occasion was invested with some degree of formality.

Amongst those who carried out the arrangements with animation and completeness is one of the most efficient of colonial officials, Miss Creswell, the Post-

mistress of Gibraltar. Her father had held the position of Deputy-Postmaster-General and Surveyor of the post-offices in the Mediterranean with advantage to the public and credit to himself, and her appointment at Gibraltar was one of the good deeds on which the department may justly congratulate itself.

Somewhat later the post was extended to Malta and other British possessions in the East, to most of the colonies in the West Indies, and to the Cape of Good Hope. From first to last cordial co-operation was experienced at the hands of Mr. S. R. French, now the Cape Postmaster-General. He and I were old colleagues. In the telegraph branch in London, as head of the Post-Office at Cyprus, and in the Cape, Mr. French had displayed the qualities which made him alike valued as an official and cherished as a friend. Of his class are the men whom England scatters about the world to advance civilization and to do honour to the old flag.

Jamaica, British Guiana, Trinidad, the Straits Settlements, Malta, the Australian colonies, the Dominion of Canada, Cyprus, Natal—how pleasant was the correspondence with them all, and still more so the personal communication with certain of the postal chiefs!

Before January 1, 1886, parcel post conventions had been negotiated with Belgium and Germany, and early in that year an exchange of parcels was opened up with all the States of Central and Northern

Europe. In a leading article of January 1, 1886, the *Times* wrote :

‘ To-day, for the first time, parcels may be sent by post from this country to Belgium and Germany. In organizing that international parcel post, which the late Mr. Fawcett always referred to as the necessary supplement of the inland service, the Post-Office seems to have begun with the ends of the world and worked homewards.’

No doubt the post did begin to run to India long before a parcel could be sent to Ostend. But the reason was simple. India, as I have explained, had a kind of parcel post ready-made to the hand, and a few weeks of discussion and correspondence and the preparation of a Treasury warrant settled the matter. But in the cases of Belgium and Germany lengthy negotiations, and the drafting and executing of agreements outside the International Parcel Post Convention, took up much time. The *Times* went on to say :

‘ On July 1 last a post with India was established. On October 1 the comparatively near West Indies were admitted to the same privilege. With the commencement of the new year the postal wave has reached Germany and Belgium. Possibly in another three months the Post-Office will become aware of the existence of its next neighbour, and a parcel post will be established with France.

‘ It is most undesirable that this country should in

the international market be at a disadvantage in any respect, and it is to be hoped that the Post-Office will spare no effort to keep England abreast of the latest Continental improvements in the carriage of parcels and other postal arrangements.'

It may be avowed with confidence that from January, 1886, to the end of December, 1892, when questions arising out of the foreign and colonial parcel post ceased to be in my hands, no effort was spared to the end indicated.

The birthday honours of 1893 showed that knight-hood had been conferred on that tried colonial servant, my excellent friend, Dr. Todd, Postmaster-General of South Australia, who signed with me the parcel post agreement. Sir Charles Todd, K.C.M.G., as he now is, has a remarkable record. He carried the telegraph across the Australian continent from Palmerston in the North to Adelaide, and built up a system of inland telegraphs in the colony. He is an astronomer and an effective administrator of the posts.

In 1886 the chief Australian colonies came into the parcel system, Tasmania and Western Australia following six months later. The *Australian Trading World* of November 19, 1892, expressed its opinion that 'the importance of the parcel post to Australia, Tasmania, and New Zealand has not yet been sufficiently recognised. It places the customer in some remote town of the colony or on some out-of-the-way

station in direct trading communication with the great English shopkeeper. The middleman, or, rather, the series of middlemen, have been practically eliminated from the deal, and the lady 300 miles up-country from Sydney or Brisbane can have her bonnet or boots direct from Regent Street or Bond Street. We look to see this channel of trade increasingly used.'

The colonial representative with whom were my largest personal dealings was the popular Sir Francis Dillon Bell, K.C.M.G., a man distinguished alike by qualities of head and heart. We negotiated and signed the New Zealand parcel post arrangement of 1888. Many difficulties lay in the way, but Sir Francis, by adroit management, surmounted them all. He twice conveyed to me the thanks of his Government—first in a letter which, being dated November 10, 1888, came as a most welcome birthday gift :

'Permit me,' he wrote, 'to convey to you the best thanks of my Government for the courteous assistance you have given in bringing to completion a matter of so much postal advantage to the country and New Zealand.'

Next, in July of the following year, for a little timely co-operation he wrote as follows :

'It gives me much pleasure to be the bearer of my Government's thanks for the help you were kind

enough to give them on this, as on so many other occasions.'

Such acknowledgments are no mean compensation for any special labour and anxiety that may come in the civil servant's way. It was also pleasant work to negotiate agreements with colonial statesmen so distinguished as Sir Graham Berry, Sir Saul Samuel, Sir J. Carrick, and others.

In August and September of 1886 Canada and Newfoundland were included in the colonial post. The service with Canada was at first confined to certain selected offices in the Dominion, and the weight of the parcels was limited to three pounds. The postage also varied with the distance from the Atlantic seaboard of the place of destination or origin. These restrictions and distinctions have been gradually removed, sometimes on the initiative of the Imperial Post-Office, and sometimes voluntarily by the Canadian Post-Office; and there is now a uniform tariff, for parcels up to eleven pounds in weight, to and from all parts of Canada, alike to the maritime provinces as to the Rocky Mountains and far-off Vancouver's Island. In our efforts to establish this Canadian post, we found an effective coadjutor in Mr. W. H. Griffin, of Ottawa, the Deputy Postmaster-General of the day—one whose name had been for thirty years 'familiar in our mouths as household words' at the Post-Office. His successor, Mr. White, has helped it in every way. Prosper thy beaver-traps, thy corn-lands, thy factories,

thy mines, thy flocks and herds, thou vast Dominion, and sweep on in thy majestic course to a great future !

The Post-Office did not neglect the smallest of her Majesty's colonial possessions. Within the Antarctic drift-current is to be found under the Union Jack a reproduction of the British island of St. Kilda and its satellites in the North Atlantic Ocean—viz., the three islands of which the chief is Tristan D'Acunha.

To this remote place, after much correspondence as to ways and means, we at length extended the colonial parcel post.

Stupendous cliffs are surmounted by tableland, which is in turn dominated by a reproduction of the Peak of Teneriffe, its summit 8,000 feet above sea-level ; and on a tongue of land or grassy slope, situated under a perpendicular cliff 1,000 feet high, are the dozen or so thatched cottages which form the village of Edinburgh. All the 84 inhabitants speak English ; all belong to the communion of the National Church ; all have their being in a forlorn spot 1,323 miles from St. Helena, and 1,512 miles from the Cape of Good Hope.

St. Kilda lies about 40 miles west of the western side of North Uist, in the Outer Hebrides. Stornoway, about 100 sea miles distant, is the nearest port of any importance. Perched 1,220 feet above the sea, about 70 inhabitants dwell in sixteen neat stone cottages roofed with zinc, being in this respect less well off than the Tristan cottagers, who have thatch over their heads.

Once upon a time, whenever a vessel communicated with the island, a result was that its inhabitants were affected with a severe cold in the head, the mere fact of strangers mixing with them producing this distressing phenomenon.

In the year 1887 came the parcel post with France. The Post-Office had really been aware of the existence of France for some time, the doubts of the leading journal notwithstanding. But there were difficulties in the way of a Convention, which could not be immediately surmounted. At length it became possible to exchange parcels, not merely with France and her possessions, but with Spain, Portugal, Italy, and Switzerland *viâ* France, thus bringing into the English system all European countries except Russia.

The extension of the service to Natal (in effecting which Mr. Chadwick, Postmaster-General of the colony, helped us over many an unforeseen obstacle), to the colonies on the West Coast of Africa, and to the South American Republics of Argentina, Chili, Colombia, and Costa Rica, immediately followed.

At this time also it was possible to make reductions in colonial parcel postage, and the rates to India, Australia, the East, and the Cape were thereupon lowered. The reduction of postage stimulated the traffic, the number of parcels exchanged with some of the colonies increasing soon afterwards to the extent of about 20 per cent. Their average weight also increased.

Next came extensions of the parcel post to the Mauritius and Bermuda, and in 1890 to the British East African Possessions. There was, and still is, a certain fascination in creating facilities for trade with the West Coast of Africa. One never knows what may happen in the way of developments. Our settlements are on the very edge of the coast, sometimes at the mouths of the rivers, down which palm-oil comes for shipment, sometimes on a hot, sandy strip, in all cases with a vast, largely unknown interior behind. What will not some day be the trade of the tremendous untouched areas of the Niger Coast Protectorate?

Governor Sir Brandford Griffith, in a speech at Liverpool, on February 16, 1894, said that 'the parcel post had been established, and was a great boon to the people. It is remarkable what a large number of packages come to the natives as well as to the Europeans.'

Cordial help in establishing such of the posts as came within colonial jurisdiction was always available at the seat of government on the Gold Coast, where my friend and colleague, Mr. F. H. Hodgson, C.M.G., as Colonial Secretary, has done admirable work. (Hot weather does not seem to affect all European constitutions alike. The freshest, rosiest Englishmen that ever entered my room at the Post-Office hailed from Hindostan and the Bight of Benin.)

On January 1, 1892, Queensland (the last British colony to adopt the parcel post system) was added to the list of extensions. South, east, and west the

foreign parcel post threw out its arms ; and Uruguay, below Argentina, far-away Siam, and the hot plains of Mexico were included in its clasp. How pleasant was our passing intercourse, good Señor Don José Jacinto Jimenez, of Mexico city ; and how pure and fluent was the English with which you replaced the polished Castilian tongue when we foregathered in London !

Under independent agreements or conventions every British colony, every dependency of the Empire, from India, the Dominion of Canada, the Cape, and the Australasian group, all the States of America, except the United States, Brazil, and some of the smaller republics, have been linked by parcel post with this country.

The number of foreign and colonial parcels despatched and received was, in

1885-86	112,700 (for 9 months)	1889-90	1,025,892
1886-87	393,520	1890-91	1,148,320
1887-88	637,942	1891-92	1,261,760
1888-89	867,045	1892-93	1,308,066

An illustration as regards Eastern mails may be of interest. The first foreign and colonial parcel mails despatched to India, Egypt, and Gibraltar consisted of 25 boxes, containing 1,105 parcels. In similar mails despatched in October, 1892, which consisted of 195 boxes, there were sent 3,882 parcels—a pretty fair increase of business in a few years. No doubt, however, the approach of Christmas swelled the total. The whole parcel mails for the

East and Australia despatched on that day consisted of 348 boxes, and contained 7,581 parcels.

An analysis of the parcels dealt with in the year 1892-93 shows that the number exchanged with the principal States of the Continent and with British possessions, was as follows :

FOREIGN.

France	287,205	Holland	53,017
Germany	262,263	Belgium	51,725
Italy	66,748	Switzerland	46,991

It would seem that the volume of parcel business with France and Germany is more than twofold that with all other parts of Europe combined.

COLONIAL.

East Indies	137,482	Malta	20,486
Australasia	70,882	Hong Kong	16,909
Cape and South		Gibraltar... ..	14,276
Africa generally...	37,067	Ceylon	12,500
Canada	48,193	West Coast of Africa	7,612
West Indies	40,042		

England sends away nearly twice as many parcels as she receives. Unlike the practice followed abroad, the addressees of parcels in this country are not required to attend at the Custom-house, open their parcels, and pay import duties. Such duties are collected, at the very door of the recipient of the parcel, by the Post-Office, which itself discharges at the Custom-house all statutory obligations devolving on the public in respect of parcels received from abroad. Under the regulations in force, the convenience of the public and the security of their

foreign and colonial parcels against loss seems complete.

By the terms of the conventions with foreign countries, there is an obligation to pay a limited compensation for the loss or damage of parcels in the post, and this principle has been extended to most of the colonial services. Moreover, the parcels exchanged with India and several colonies can be insured against damage or loss up to the value of £50. This plan has answered so well that it has been extended to inland parcels.

The effective adjustment of foreign and colonial postal relations with the United Kingdom and the control of the transmarine packet service are matters of deep concern alike to the English race in the colonies and to the public at home.

The foreign and colonial branch of the Secretary's office is provided for packet business with a civil controller and a naval adviser. At a net cost of about six hundred thousand pounds a year, England is linked with the North American colonies and the West Indies on the one hand, and with the East Indian possessions and the Australian continent on the other. The West Coast of Africa is brought in touch with Liverpool, the Brazils and South America generally are served by fine packets from Southampton, and the Channel is bridged by night between Dover and Calais.

The Cape of Good Hope provides and pays for her
VOL. II.

own swift mail-packet service to Plymouth, so does the Dominion of Canada for its Liverpool line, but of course the mails of the mother country are not carried by either gratuitously.

In 1857 a strange contract came to an end for the conveyance of the Cape of Good Hope mails and such Indian correspondence as the public chose to send by a line of steamers between Dartmouth and Calcutta.

There must have been good reasons for making the arrangement, but it was obvious that under it the punctuality of the Cape mail service depended, not only on the due performance of the voyage between England and the Cape, but also on what happened in the Indian Seas between the Cape and Calcutta. Any way, the new service soon collapsed, and no further attempts were made to use the Cape route for Indian mails.

The Union Steamship Company entered the field at a subsidy of £19,500 a year, and they despatched a small steamer (800 or 900 tons) once a month in each direction, and were allowed 42 days for the single trip, to or from Devonport and Table Bay. Such was the Cape service 37 years ago. As Tennyson's 'Northern Farmer' says, 'an' look at it now !'

The Castle Company's fine steamers have also come upon the station, and between the two companies superb fleets are sent to plough the South Atlantic, composed of vessels of 5,000 or 6,000 tons, which sight Table Mountain in 16 or 17 days from the Needles or Plymouth. Once a week the *Scot*, or some

other great steamer of the Union Line, or the *Tan-tallan Castle*, or other floating palace of the Castle Line, takes passengers and goods to the Cape or brings home colonists, feathers and gold. The *Tartar*, one of the Union Company's vessels, brought back in May, 1894, 246 passengers and specie of the value of £288,000.

Once, in my room at the Post-Office, Sir Donald Currie, K.C.M.G., gave me an outline of that wonderful career which has greatly helped to make the Cape mail-lines what they are, and perhaps, though in a less degree, the Cape Colony what it is in the present and what it hopes to be in the future. Some day, perhaps, Sir Donald will be induced to tell the story in full to the public.

In 1823 the Falmouth packets had been transferred to the Admiralty, and on January 16, 1837, the rest followed suit. This must have been in the earlier year a bitter trial for Sir Francis Freeling, and for the Assistant-Secretary, Mr. G. H. Freeling, who had especial charge of the sea service, and an alteration hardly agreeable to Colonel Maberly later on. But as a military man naval matters might not have been to his taste.

It is a long lane, however, that hath no turning. One day the good news reached the Foreign and Colonial Branch that on April 1, 1860, the packet services would be transferred again to it; not, indeed, to the extent of owning and working vessels, but as far as control went. So once more the great steam-

ship companies came under Post-Office review, and it was then that Mr. Frederic Hill, as Assistant-Secretary in charge of such business, helped, it should be added, by one of the most capable officers of the old *régime* that the department possessed—the late Mr. W. J. Page, and his partner Mr. Rea—successfully bent a vigorous mind upon the packet services in the direction of increased efficiency and diminished cost.

Once more the Post-Office could demand with authority an explanation of the late start by ten minutes of the mail-boat from the antipodes—once more knit the official brow over delay in raising the anchor at Aspinwall of the taut craft for Greytown and the Mosquito Coast, an unduly long stop of the packet at Callao on her voyage down the Pacific, or her late arrival by an hour at Valparaiso in Chili.

An idea had sprung up a few years previously that the delivery of homeward-bound letters would be quickened by a process of sortation on board. In 1857-8 the Mediterranean packets were accordingly fitted up with sorting-rooms, and the plan seemed to answer very well. The same was done with the Canadian steamers, though a gloom was cast over the proceedings by the loss of the *Hungarian*, and with her the father of marine sorting, Mr. George Nash, an esteemed official of St. Martin's-le-Grand.


Some years passed, and the Canadians ran their own packets and did their own marine sorting; the Indian Post-Office agreed to prepare the letters on

the voyage to the eastward of Suez, so there was nothing left to be done in the Mediterranean, and at length the West Indian sorting was given up too. Thus the British Post-Office relinquished altogether the plan of sorting on board the ocean packets.

As to progress in the construction of mail-packets, let the first Peninsular steamer, the *William Fawcett* of 1837, of 206 tons and 60 horse-power, be contrasted with her owners' *Australia* of the present day, of 6,901 tons and 10,000 horse-power; or even the *Niagara*, of 1,825 tons and 251 feet in length, averaging $10\frac{1}{4}$ knots an hour, of Sir Samuel Cunard's time, with the magnificent *Umbria* and the *Campania* and *Lucania*, of close on 13,000 tons Board of Trade measurement, which habitually steam at 20 knots an hour across the Atlantic.

The *Umbria* is two-thirds as broad—52 feet—as the *William Fawcett* was long—74 feet—and her length is more than six times as great. Yet the gallant little vessel of the thirties, after her fashion, did her duty on the stormy Atlantic not less stoutly than the *Umbria* does hers in the nineties. What, it might be asked, was the largest mail-packet afloat when the present nautical adviser of the Post-Office—Captain R. Patton Jenkins, R.N.—or his predecessor, Mr. J. Young Messum, R.N., first reported himself on board a man-of-war, or even when the ripe experience of both was put at the disposal of the Post-Office?

Have the public an idea of the vast quantity of mails the great packets carry? Before my eyes on



Carlisle Pier, at Kingstown, on an evening in August of 1890, no fewer than 800 sacks of United States and Canadian mails were hurried across from the mail-van to the ship's deck.

A Christmas mail for India and Australia has been known to consist of 1,595 sacks. Such were taken on from Brindisi in November, 1893, by the Peninsular and Oriental Company's packet *Arcadia*, which vessel had also on board 4,994 parcels, enclosed in 262 boxes. The parcels had been embarked at the Docks in the Thames.

Can the Gargantuan appetite be gauged of one of these great passenger mail-steamers? Take, as an example, the provisioning of the *Etruria* for so relatively short a trip as that from Liverpool to New York. On a single voyage her people eat 20,000 lb. weight of meat, of which nearly 13,000 lb. are British beef, while 1,500 head of game and poultry and 11,500 eggs are mere items in the menu. For the round voyage, more than 15,000 bottles of various fluids—wine, ale, spirits, and mineral waters—are laid down.

As to breakfast and five o'clock tea, 1,850 lb. of tea and coffee are the stock for the round voyage of 22 days, which commodities have to be sweetened by 5,100 lb. weight of sugar. By way of relish are thrown in 3,500 lb. of butter and cheese, and 4,500 lb. of bacon and ham.

In the fifties a small, gray-haired man, of quiet manners and not overflowing speech, used occasion-

ally to visit the packet branch of the General Post-Office. It was Sir Samuel Cunard, Bart., the chief figure in the Liverpool firm of Cunard, Burns, and McIver, who founded the British and North American Steam Packet Company. He received the distinction of a baronetcy in recognition of his successful efforts to establish a Transatlantic mail-service unsurpassed in speed and security.

Then, as now, the Cunard boats ran between Liverpool and Boston and Liverpool and New York; but one smiles to see, in a vision of the mind, the *Europa*, the *Niagara*, the *Asia*, the *Africa*, and the *America* lying in the Sloyne, their red funnels claiming cousinship (but many degrees removed!) with the *Campania* and *Lucania*, the *Aurania*, *Etruria*, and the *Umbria*.

In my early experience it was not unusual for some of the mail-packets to occupy 15 or 16 days on the voyage from New York to Liverpool; though it is true that the *Persia*, on her first homeward voyage, in August, 1856, made the passage in 9 days 1 hour. A few other vessels would perform it in 10 or 12 days. As a contrast, the *Lucania*, on May 12, 1894, arrived off Queenstown in 5 days 13½ hours—say, approximately, 6¼ days for the entire voyage.

By going back to a date beyond my own personal knowledge of facts, and relying on the 'American Notes' of a famous novelist, a still more striking contrast can be adduced.

Fifty-two years ago—that is, on January 4, 1842—the good ship *Britannia*, a paddle-wheel steamer of

the Cunard Line, left Liverpool with the mails for Halifax and Boston. She had on board 'Charles Dickens Esquire and Lady.' The reader should turn to Chapter I. of the graphic record of the voyage.

The *Britannia* was about one-tenth of the size of the *Campania*. She made Boston only on the 22nd—i.e., after a passage of 18 days. It would now be within the bounds of possibility for the *Campania* or *Lucania* to run out and home and back again to Boston in less time than the *Britannia* occupied on the outward voyage alone. Yet the last-named vessel was regarded—no doubt with reason—as 'the far-famed fast American steamer.' It is true that the weather experienced was severe even for the Atlantic. The Cunarder came into Boston with crushed lifeboat and the planking torn sheer from her paddle-boxes. As to the details of that voyage, however, it is to the great writer's page that one should refer for a description unsurpassed in vividness and vigour.

But has not the Cunard Fleet published a history of its own, and shall I needlessly attempt to cover ground which has already been traversed with completeness and ability?

An unusual incident connected with the American mail-packet service occurred on December 15, 1892. On that occasion a gentleman who had booked his passage through from England to America, and who had an urgent engagement at New York, was unlucky enough to miss in Dublin the mail-train from Kingsbridge terminus to the south. He promptly chartered

a special train, which started from Dublin at 9.26 a.m., and reached Queenstown in the short space of $3\frac{1}{2}$ hours—i.e., at 12.57 p.m. But the mail-tender with the mails and passengers had started from Queenstown Pier at 12.31 p.m. Nothing daunted, our traveller boarded as speedily as possible another tender which was lying in the harbour. In this he set out in pursuit, and was lucky enough to reach the packet just as the mail-tender had been thrown off, and the transfer of the mails and passengers completed.

There is the legend which finds acceptance of a belated traveller having overtaken the mail-packet at Queenstown by means of a whale-boat; but in this case I am not able to 'verify the reference.' Association, however slight, with a 'whale' suggests a prudent reticence.

In May, 1894, there took place what has been described as a race across the Atlantic between two first-rate steamers, the *Majestic* and the *Paris*, carrying mails. Probably each commander would disclaim any notion of racing on his own part—would maintain that his own vessel steamed at an ordinary pace, but would see, no doubt, a futile desire to excel on the part of the other. So whether it was an actual race or not must be left to the reader's judgment, it being borne in mind, on the one hand, that it is no longer the custom, even on the Mississippi, for the captain, when desiring to pass another steamer, to sit on the safety-valve; and, on the other, that in this

case the steamers belonged not only to rival lines, but to different countries.

The *Paris*, bringing the bulk mails, left New York at 4.33 p.m. on May 16, and the correspondence was received at the General Post-Office, London, *viâ* Southampton, at 11.21 p.m. on the 23rd.

The *Majestic*, bringing mails for Ireland, and specially addressed letters, etc., left New York at 5 p.m. on May 16, and the correspondence for London was received at the General Post-Office, *viâ* Liverpool, at 10.52 p.m. on the 23rd. Thus the English ship left New York 27 minutes later than the American vessel, but her mails arrived in London 30 minutes earlier than those by her rival. Still, what shall be said of the result except that it was a dead heat?

From this country to the United States are sent annually $12\frac{1}{2}$ millions of letters. Let us take a peep into the interior of one of a series of pair-horse vans which at ten minutes past eight o'clock on Saturday night rattle through Euston Square. It is on its way to the Irish mail-train, which stands ready, with steam up, in the western departure bay, to start for Holyhead. Piled to the roof are sacks of American letters, a contribution, in short, for the great *Campania*, or possibly the *Umbria*, which had sailed from the Mersey in the forenoon with previous instalments, and which the Irish mail, after delivering its inland bags, means to intercept at Queenstown.

At 8.20 p.m. the train rolls out of the station; at 11.48 it pauses at Crewe to receive the very latest

letters from London and the South, sent after it by the down special. It halts for awhile at Chester to take in bags from Liverpool, Manchester, Glasgow, and the North generally, and by half-past two in the morning the combined mails are at Holyhead and on board the packet bound for Kingstown.

From Carlisle Pier a special train hurries off to Dublin. At 6.40 a.m. it runs out of a station in Amiens Street over a line which curves around the city and makes for the Great Southern and Western Railway.

Once on the main line for Cork, and its head fairly set due South, the train soon dashes past the station for the Curragh of Kildare, past the Maryborough Junction for Kilkenny and Waterford, past historic Thurles, through Limerick Junction in view of the Galtees, by enthralling reaches of the Blackwater at Mallow, within sight of Blarney Castle and its famous stone, and past the fine city of Cork; and then, skirting the bay, which can shelter more than a fleet, arrives at Queenstown soon after eleven o'clock.

With all the speed of willing Irish hands, the mails are transferred to the mail-tender and embarked on board the liner lying in the Cove of Cork or Queens-town Bay. It is Sunday, at noon. By Saturday our mails will be in New York—possibly by Friday night, if the *Campania* repeats her wonderful performance of making the outward voyage in 5 days 12 hours and 7 minutes.

Or it is Thursday. The magnificent *Teutonic*, of

the White Star Line, is steaming out of the bay with Wednesday's mails from London, etc., intent on beating her record and passing Sandy Hook before 1.36 on the following Wednesday morning.

If the outward service is swiftly performed, how as to the homeward? Let events speak for themselves. On February 21, 1894, at 5.30 a.m., the *Majestic*, sister ship to the *Teutonic*, left New York with the mails for the United Kingdom, consisting of 745 bags. She landed them at Queenstown on the 27th at 8 p.m., after a passage (allowing for difference of longitude) of 6 days 9½ hours.

At 8.25 Irish or 8.50 English time, this mass of mails was sent away from Queenstown by special train to Kingstown. At 2.2 in the morning of the next day a special steamer left Kingstown and took the mails over to Holyhead in 3 hours and 35 minutes. From Holyhead, at 5.50 a.m., another special train ran with 398 bags for London and the Continent to Euston, which was reached at 11.32 a.m., and by five minutes past noon the mails were in the General Post-Office, thus completing the journey from Queenstown Station to Euston Station in 14 hours 42 minutes, and to the Post-Office in 15 hours 15 minutes. An hour later—*i.e.*, at five minutes past one o'clock—the postmen had commenced to deliver the letters in the City.

It follows that letters written in New York on the night of the 20th were read in London soon after noon on the 28th, and replies posted the same day

were embarked at Queenstown on a White Star Liner, and were well on the way to New York before noon of the next day. By an arrival in New York early on Wednesday, March 7, the course of post would have been little over a fortnight.

I narrate elsewhere the circumstances attending the swift transit of the despatches from America consequent on the *Trent* affair a long time ago.

For some years after my entry into the Post-Office the Dover and Ostend, as well as the Dover and Calais mails, continued to be carried under the British flag.

One of the finest men and sailors with whom official business ever brought me in contact was for many years a commander on the Dover station—Sir Luke Smithett. He was generally selected to take charge of the special packet provided for the conveyance of a royal passenger across the Channel, and was doubly associated with the Post-Office, both in connection with the mail-steamers and in the assistance he gave in 1853, in the mail-packet *Vivid*, in marking the course to be taken on the occasion of laying the Dover and Ostend cable, which is now public property.

Eventually the Belgian Government undertook the night as well as the day service, and all that her Majesty's Government does is to make a contribution towards the cost. The night mails to and from Calais continue to pass under the British flag.

It was while the Ostend night mail was still carried

in a British vessel that the gallant Marine Mail-guard Mortleman lost his life in an effort to save the bags during the melancholy wreck of the *Violet*, on the passage between Ostend and Dover, in 1856. The Duke of Argyll, whose name, after so many years, has still a sweet savour at St. Martin's-le-Grand, in the third annual report on the Post-Office, paid tribute to his bravery in warm terms.

‘Mr. Mortleman, the officer in immediate charge of the mails,’ wrote his Grace, ‘acted on the occasion with a presence of mind and forethought which reflect honour on his memory. On seeing that the vessel could not be saved, he must have removed the cases containing the mail-bags from the hold, and have so placed them that when the ship went down they might float, a proceeding which ultimately led to the recovery of all the bags except one containing despatches, of which, from their nature, it was possible to obtain copies.’

Then was added that which—true as regards the period anterior to the year in which it was written, 1857—is true to the present day :


‘I may add that a similar spirit of determination to perform their duty to the last has on several previous occasions of exposure to imminent danger distinguished the conduct of our officers.’

CHAPTER XXII.

THE TRAIN AND THE BOAT.

BETWEEN thirty and forty years ago Mr. Robert Stephenson, president of the Society of Civil Engineers, threw down the gauntlet to the Post-Office, by representing the railway system as essential to the fiscal success of penny postage.

As might be expected, Sir Rowland Hill flew to arms, and both sides splintered lances with more or less effect. Probably these distinguished men considered the matter from different standpoints. Mr. Hill would naturally have had regard to the produce of penny letters and the cost of conveying them by road; Mr. Stephenson had in view the bulk, not of letters alone, but of the entire mails sent by rail, which comprised, of course, all classes of correspondence—newspapers and book-packets as well as penny letters. Be that as it may, one of my predecessors, Mr. Edward J. Page, furnished an able report on the subject, which, dated February 29, 1856, is still of interest. Each party maintained his



position, and the academic discussion was without final issue. Nowadays, however, no one doubts that without the help of steam and the railways the Post-Office would be shorn of the major part of its fame and utility.

The lighting of the postal buildings at St. Martin's-le-Grand could hardly be effected by electricity, unless steam worked the dynamos, while the heavy sacks and multitudinous baskets which mount from the ground-floor to the attics are lifted by steam. In the telegraph galleries the 'Wheatstone' processes are facilitated by the expansion of air compressed by the agency of steam. Gigantic pop-guns shoot telegrams under the streets, steam again being the means of propulsion.

The reader does not need to be reminded that these apart, it would be impossible for the department, without railways, to grapple successfully with the immense mass of correspondence to which cheap postage and the growth of the population have given rise. Railroads and steam-ships alone render possible frequency of service, celerity, and, on the whole, an exact regularity.

Between the contracting companies and the Post-Office exist strong bonds of sympathy and goodwill. These companies render valuable services to the Post-Office on not illiberal terms. They are cordial in their dealings, take a pride in the effective performance of the mail-service, are attentive to suggestions, and at all times ready to help in a difficulty. Such

has been my experience, as Inspector-General of Mails, for more than ten years.

On the other hand, the Post-Office is not without its value to the railway companies as a client. It pays to them in the aggregate a million and a half pounds sterling per annum—a million or thereabouts for the general mails, and half as much more for the parcels. This is a comfortable sum, though there is rendered in return for such payment a full and complete equivalent, at all events, as regards the letter mails.

Of all the persons with whom it is agreeable to negotiate, commend me to general managers. They are men of great astuteness and ability, who have a thorough knowledge of their work; who, moreover, being the trusted agents of their directorate, know exactly how far they may go in negotiations, and what terms they may safely accept. Finally, and this is the great point, they know their own mind.

More than twenty years ago I was travelling by special train with the General Manager of an Irish line on a tour of inspection over some hundreds of miles of railway, part of it laid as a single road. My genial companion, as a cheerful means of beguiling the time between stations, regaled me with his personal experience of half a century of railway accidents. He began with the train—he was a passenger by it—which struck down Mr. Huskisson on the opening of the Liverpool and Manchester Railway on September 15, 1830; and he ended with the remarkable instance

of the Cork and Dublin mail-carriage, while at a speed of 40 miles an hour, leaping from the rails within 200 yards of the next station, and springing on to them again, with bodily harm to no one, just as it was about to strike the massive stone coping of the station platform.

The narrow escape of the Cork mail recalls the peril of the Bristol mail as narrated in the diaries of Sir Daniel Gooch :

‘The whole of the Great Western Railway between London and Bristol was opened on June 30, 1841. The question of working through the Box Tunnel, up a gradient of 1 in 100, was a source of anxiety to Mr. Brunel. . . . I cannot say that I felt this anxiety. I felt we should have no difficulty. Only one line of rails was complete through the tunnel the day we opened, and the trains had therefore to be worked on a single line. I undertook to accompany all the trains through the tunnel, and did so the first day and night, also the second day.

‘At about eleven o’clock the second night we had a very narrow escape from a fearful accident. I was going up the tunnel with the last up train, when I fancied I saw some green lights, placed as they were in front of our train. A second’s reflection convinced me it was the mail coming down. I lost no time in reversing the engine I was on, and running back to Box Station with my train as quickly as I could, when the mail came down behind me. The policeman at the top of the tunnel had made some blunder, and

sent the mails on when they arrived there. Had the tunnel not been pretty clear of steam, we should have met in full career, and the smash would have been fearful, cutting short my career also.'

But that which impressed me most amongst the disturbing stories of my travelling companion was one to this effect: He was standing in the station of a large town. Opposite was a very long siding which ended in the abutments of a bridge. On the up line an express train, half a mile off, was approaching. To his horror he plainly saw it switched on to the side line. He swiftly turned to a porter: 'Jump on a car,' said he; 'gallop for your life. Send back by it the first doctor you can find. Send by other cars every doctor you can lay hands on. Tell them there is a terrible accident.' Two minutes later a wrecked train; ten minutes later, surgical aid.

For a person in an official position, with some definite and sufficient object in view, there can be nothing more enjoyable than a visit by appointment to the Railway Clearing House in Seymour Street, near Euston Square Station, there to encounter either the full conference of general managers or a committee of their body. My experiences, at any rate, of these meetings, were all of an agreeable kind. Stiffness and formality were conspicuous by their absence, though each side fought for its own hand. The managers rarely made difficulties that they were not ready themselves to assist in solving.

Some of the eminent men whom it was a duty and privilege to confer with, on my appointment as Inspector-General of Mails, in 1882, have passed away; some, in retirement, are enjoying a well-earned rest. So the visitor to a conference at the Clearing House would now look around in vain for the handsome presence of J. Grierson, with his winning smile; for the stalwart figure of Sir George Findlay, with his soft, leisurely voice; for the hard-working Underdown, the shrewd persistent Walker, or the cheery, easy-going Knight. Alas, too, we should in vain desire to see the valued Secretary of the period, the late Mr. Dawson!

In 1830, soon after the opening of the line between Liverpool and Manchester in September, the mails were for the first time conveyed by railway. But it was not until 1837 that the iron road began to play an important part in postal economy. Some of the best administrative work done by Sir Rowland Hill at the Post-Office for fifteen or twenty years lay in this direction. He possessed a special qualification in the shape of practical knowledge gained as a Director and a successful Chairman of the London and Brighton Railway Company.

There was room for reform. In 1838 the speed of the mail-train was a gentle twenty miles an hour. It was even so, at a somewhat later period, when the railway northward had been completed as far as Lancashire, and the mails took eleven hours and a half for the journey from London to Lan-


caster, a distance of 241 miles. Now, when the 'special' to the North has travelled eleven hours and a half, it is pulling up at Bridge of Dun, north of Forfar, which is distant $497\frac{1}{4}$ miles from London.

Even in 1851 it was alleged, though legal opinions established another view, that the Post-Office could require a railway company to convey its mails at no greater speed than 27 miles an hour including stoppages.

But Rowland Hill brought about a good understanding between the contracting parties, and the great arterial lines were put on an improved footing. On these lines the very life of the Post-Office depends. Let me describe them—not precisely as Sir Rowland left them, but as they are now.

First—place to the North! At 7.8 every night there starts from Newcastle-on-Tyne what might not inaptly be termed the Northumbrian night mail 'up.' But as the Isis becomes the Thames, so does this train, when it has passed through York and is making for Normanton (10 miles south-east of Leeds), gradually acquire the title by which it is known all over the West, of the North Mail. From Newcastle to Normanton the North-Eastern Company are answerable for its progress; onwards, the Midland.

As it rolls south and by west, it gathers in its course mail-bags at Sheffield and Chesterfield, Derby and Burton-on-Trent, but it does not attain to its



full dignity until, at Tamworth, it receives a good load from the up night mail train from Scotland. There, under the stars, in the small hours, mail-bags and parcel-baskets are swiftly transferred by the aid of machinery between the Midland Company's bridge above and the level of the Trent Valley Railway in the cutting below.

At Birmingham other heavy loads are exchanged, and the train then makes for Gloucester and Bristol. From the former city, which is reached at 4.36 a.m., a branch train continues the service into South Wales, and from Bristol, where the mail is due at 5.45 a.m., the Great Western Railway carries it on to Devonshire and Cornwall.

There is a similar train in the opposite direction; also a train from Plymouth, in connection with one from Cornwall, which runs through Bristol and proceeds by the Severn Tunnel, *via* Hereford and Shrewsbury, to Crewe. It there fits into a special down night mail train from Euston Square, which in due course will be more particularly described.

As Crewe is a wondrous junction, the times of the mail-trains will not be without interest. The Irish mail-train leaves London at 8.20 p.m. The special postal train, or down night mail, follows at 8.30, and the Irish train, and trains from Leamington and Birmingham, Bristol, Swansea and South Wales generally, as well as other important districts, are due in at Crewe, in front of it, as follows :

				P.M.
The mail from Birmingham	...	...	...	11.33
„ „ „ North Wales	...	...	...	11.33
„ „ „ the West of England	...	...	...	11.35
„ „ „ „ Potteries	...	...	...	11.35
„ „ „ London for Ireland	...	...	...	11.48
„ „ „ Manchester	...	...	...	11.50

All these trains must be in the station before the arrival of the down special, which is due at 11.54, or the regularity of the services to Glasgow, Aberdeen, Inverness and Wick, and to Belfast and Londonderry, Galway, Sligo, Limerick, Cork, and even New York, would be jeopardized.

At midnight, *i.e.*, six minutes after the arrival of the 'special' with the latest bags from London, etc., the mail for Ireland is despatched. The mail for Scotland goes on at 12.5. When all the great trains are cleared off, the mail from Shrewsbury is started at 12.15, to catch, at Normanton, the mail for York at 2.23.

Next in importance northward of Crewe are Wigan and Preston. Here come in Manchester and Liverpool trains with bags for the North and a cross-post from Normanton. This cross-post, termed the Normanton and Bangor mail, throws out a spur at Staleybridge, and, taking in mails from Manchester, ties in the up Newcastle mail going south and south-west, and the up mail from Hull with the down night mail going north and north-west.

There is another cross-post from Normanton, *via* Leeds, which outstrips the Wigan route, and falls into

the down night mail at Carnforth, a station north of Lancaster. This second spur assures the circulation of letters, say from York or Hull, for places north of Carnforth, which would be thrown out of course, if, being sent *viâ* Staleybridge, they were delayed on the way, and there being only a few minutes to spare, they missed the down night mail at Wigan.

To refer to the working of the 'limited' mail-train which follows the special on the journey North and precedes it on the journey South would perhaps only complicate matters. For the same reason details are omitted of the running of the important train from Peterborough to Rugby, which conveys North mail letters from East Anglia and elsewhere.

The 'limited mail' was one of Rowland Hill's achievements. It had long been a principal object with him to limit the length, and consequently the weight, of the mail-trains. By such means he hoped not only to accelerate the correspondence, but also to secure punctuality.


The acceleration and limitation which Sir Rowland planned of the night mail on the London and North-Western Railway was carried out on February 1, 1859. It was a great step in advance. Prior to this change the train started from Euston Square at 8.45 p.m., and was due to arrive at Glasgow at 9.10 a.m. and Aberdeen at 2.18 p.m. The change, which fixed the departure at 8.30 (later on, 8.50), made it due at 7.12 a.m. and 12.35 p.m. respectively.

On the duties of Inspector-General of Mails being

added to mine as Assistant-Secretary, it struck me that a wide field of improvement opened out in the direction of accelerated and multiplied mail-trunk despatches. Mr. Fawcett was nothing loath to enter upon it; but he did not live to see the full fruition of his schemes.

A great work in connection with the railways, which, however, was completed in Mr. Fawcett's term of office, was a new acceleration of the English and Irish mails. This involved negotiation, personal and in writing, with the London and North-Western Railway Company for the service between Euston Square and Holyhead, with the City of Dublin Steam Packet Company for the sea service to Kingstown, and with the Dublin, Wicklow, and Wexford Railway Company for carrying the mails on to Dublin. The result gave general satisfaction, a saving both of time and money being effected.

The public had long desired an acceleration of the London night mail to Scotland. At the same time, as rapid development of the parcel post appeared to follow every improvement of process which we could devise, the department wished to effect assortment of the parcels in the train itself during the journey in each direction. This would be feasible only in carriages specially set apart for the purpose. Newer and larger travelling post-office carriages were required for extended facilities for letter-sorting, and the claims of letters and parcels together pointed irresistibly to the use of a train which should travel faster and be



wholly set apart for postal purposes on the North-Western and Caledonian Railways.

Many of my most experienced colleagues saw insuperable difficulties even in the effect of acceleration on provincial mails. Nor was the scheme really so simple as at first sight appeared. To hasten the arrival of the mails in Scotland meant that the mail-train must leave some intermediate stations earlier, and that might involve an earlier closing of rural letter-boxes and restriction of postal facilities. But Mr. Fawcett was not to be stopped by difficulties if he saw that the interests of the public, as a whole, were really concerned.

When at length all objections were overcome, the scheme well-nigh collapsed because of the apparent impossibility of carrying bags from certain Derbyshire towns across country to Wigan in time for the proposed earlier despatch thence of the mail-train northwards. The circulation of letters by the principal mails is so complicated that any alteration, however minute, at one point may throw out the due course of post between many important towns and populous districts. So in pulling the machine to pieces and building it up anew, the greatest caution had to be exercised.

But when the last obstacle was overcome, and the final details adjusted, the able and successful administrator who had encouraged and cheered us in the labour of preparation had passed away. On July 1, 1885, the old limited mail-train, after a reign

of 26 years, was superseded by the special train, which starts earlier, runs faster, and admits none but officials between London and Perth, and but few others between Perth and Aberdeen. To deliver the London night mail at Glasgow at 6 a.m. on the second day rather than at 2 p.m. on the third was certainly an advance on the quickest journey of the mail-coach of fifty years ago. In 1884, the Southern letters of overnight due at Glasgow next morning were too late for the first suburban delivery. In 1885, the mail arrived by the special train at 6.15 a.m., and merchants residing in the suburbs got for the first time their letters from the South at the breakfast-table before leaving home for business in Glasgow. At Aberdeen the mail was due at 10.35 a.m.; it now arrives at 9 o'clock. The time-bills are printed in the Appendix.

The late Sir George Findlay, of the London and North-Western Railway, and Mr. James Thompson, of the Caledonian Railway, were especially my valued coadjutors in establishing this train, and those experienced officials, Mr. G. P. Neele and Mr. Irvine Kempt, the superintendents of the respective companies, in adjusting the working details. The terms of payment, after much personal negotiation, once being settled, their active co-operation soon brushed away every obstacle which arose in fitting the branch and auxiliary services to the main trunk line.

Sir George was an admirable general manager, and a man of excellent judgment and rare decision.

Familiar with every detail of the vast railway traffic which he regulated, taking broad and far-sighted views of every question, and being a man of transparent fairness, he made negotiation an agreeable rather than a laborious effort. A remark of mine to him—and he repeated it to his chairman—once was that my acquaintance with railway matters tended to prove that the bigger the man (*i.e.*, the more weighty and responsible his position), the easier it was to deal with him. He died, deeply regretted, in the spring of 1893.

It is easy to imagine the pleasure which Mr. Fawcett would have expressed could he have stood at the Euston Square Terminus in the train that he did so much to set up; how he would have felt his way from carriage to carriage throughout the full length of the first corridor mail-train established in this country, viewing with those blind eyes the long vista of postal cars—here letter-bags massed on the floor, and there parcel-baskets stacked to the roof; anon, a busy group of letter-sorters, whose craft and methods he would master in a moment; again, baskets being received and opened, and the parcels contained in them reassorted.

With a bright, pleasant look upon his frank, manly face, he would be handling some big parcel packed to the full limits of weight and size, speculating on its contents, and perhaps discerning evidence of a new industry to which his parcel post had given rise. Again, he would view — yes, literally *view*—the


apparatus for exchanging mails ; have it put in action sufficiently to demonstrate the principle, and then make some shrewd, kindly and considerate remark concerning the personal welfare of its attendants.

But, as stated, he did not live to see the day. Mr. Fawcett died in 1884, the year before that in which Mr. Shaw-Lefevre was able to establish the train.

On the eventful night when the 'special' started on its first trip, we made very complete arrangements for watching its course. My own headquarters were temporarily established in the post-office in Euston Square Station, which had been connected by direct wire with the railway-station at Crewe. From thence it was possible to overlook all the working. At Crewe Station, my coadjutor and successor in the office of Inspector-General of Mails, Mr. Sifton, had taken up his post. To Normanton went Mr. Oakeshott, and to Birmingham Mr. Aitken.

Thus we were in touch with the salient points. There was no hitch of any kind, and when the out-posts were called in, we all, in seeking our pillows and turning to account what was left of the night, reposed with the pleasing consciousness of 'something attempted, something done.' This well-appointed train ran without mishap for eight years, *i.e.*, until July 19, 1893, when, unhappily, on entering Glasgow it left the rails, and the poor stoker on the foot-plate of the engine lost his life.

If Mr. Fawcett firmly grasped the reins of improved railway services, not the less decided was his



successor, Mr. Shaw-Lefevre. Besides his share in the actual establishment of the special train for the Northern mails running more than a thousand miles every night, Mr. Shaw-Lefevre either devised or carried out many other large schemes.

A mid-day travelling-post-office mail-train was set up from Euston Square to Liverpool and Manchester; a similar service to Leeds, Halifax and Bradford; and an early mail (the train leaves King's Cross at 7.15 a.m.) which carries to Yorkshire the night mail from France. Trains were established in the opposite direction, and a large number of minor improvements were effected.

Many of these changes came into operation on the same day, and were heralded in glowing terms by the press. I went down to King's Cross to see the early mail leave on its first trip as the accelerated Continental mail-express, trailing a sorting-carriage. The appointed time, 7.15, came, but, to my dismay, no mails! It turned out that the roads were slippery, and so the cart had lost time, but just as the grant of five minutes grace had run out, it galloped up, the mails were hustled along the spacious platform, and the train started as the last bag was hurled into the mail-van. We nearly made shipwreck of our fine new despatch.

Otherwise things went merrily. A general idea may be obtained from the increased bulk of the letter-books of the growth of work in the Home Mails Branch of the Secretary's office consequent on the

activity of these two gifted and far-seeing Ministers. In 1881 about 1,400 pages of letters were written to railway companies. In 1886, after the work had been going on for about four years, the letter-book contained 2,500 pages, and in 1891, energy still prevailing, the letters filled close on 4,000 pages. The Inspector-General was backed by capable and untiring colleagues—Messrs. Sifton, Badcock, E. Yeld, Chambrè, Ash, Bruce, Oakeshott, Gates, James, Wickham, Aitken, Horne, and among others, one who has passed away, Mr. Challice. None could eclipse them in the interest and application which they brought to bear on the work of that active and fruitful period.

On the morning of April 20, 1894, the parcel post receptacles—exclusive of letter mails—brought by the up special were counted for me at Euston: they numbered 427, and contained perhaps 16,000 parcels.

Nor did activity slacken with the advent of Lord John Manners (now Duke of Rutland) to office. Much was done for Ireland in the shape of improved services to the North and to the South, while considerable benefit was secured to the West by establishing at no small cost a new mail-train to Galway, Sligo, Westport, etc. It left Dublin in the early morning and out-stripped the later and slower day mail. But the change was not brought about without difficulty, the necessities of the country probably justifying what rigid postal principles might not have borne out.

In 1838 the payment to railway companies was less

than two thousand pounds a year; ten years later it was as much as a hundred and twenty-two thousand; in the Exhibition year more than four hundred thousand; and, as stated, in the last financial year a round million of pounds was paid to them, besides half a million for the conveyance of parcels.

In a general way, the contracts which the Post-Office makes with the railway companies provide for the conveyance of mail-bags by any of the companies' trains, whether employed in the passenger or goods service; and unless a postal officer is sent in charge of the bags, the railway-guard takes care of them.

On all the great lines, however, certain trains are run for Post-Office purposes under a statutory notice, compulsory in its terms, or in accordance with the conditions of a time-table settled by mutual agreement. These are the mail-trains proper, the hours of which cannot be altered without the consent of the Postmaster-General.

In the earlier years of my service, despatches from London to the provinces were as a rule made twice daily, the night mail sent away, then as now, from the General Post-Office at 8 p.m., carrying the bulk of the correspondence.

Next in order of importance came the day mail. This was got off at about 8 a.m.; and its chief function, besides that of taking letters posted late at night or (though to a very small extent) early in the morning, was to carry forward 'through' letters—that is, letters posted in some part of the provinces

and sent up by the night mails to London, addressed to other parts beyond it or to places abroad.

When the clause for the general use of ordinary trains was introduced into railway contracts, changes of great importance by degrees took place; the night mail did not lose its pre-eminence, but other mails sprang into life.

Messrs. W. H. Smith and Sons, the eminent news-agents in the Strand, unconsciously did the Post-Office a good turn. For the purposes of their business, they arranged with the London and North-Western Railway Company some years ago for the use of a train specially arranged for the conveyance and assortment of newspapers, which should leave Euston at 5.15 a.m. every weekday and run swiftly to Stafford.

This was the parent of the so-called newspaper trains, which now leave all the railway termini in London shortly after five o'clock in the morning, carrying passengers, mails, and the first edition of the London morning daily papers. These trains, anticipating the departure of the day mails by two or three hours, clear off all, or almost all, the letters posted after the last mail of the previous night is closed, and deliver them at all or most of the principal towns at a proportionately earlier time.

Simultaneously, advantage was taken of the growing practice of the companies of running passenger trains from London at midnight, or, where such were not established, of the customary night

goods trains, to send supplementary bags containing letters posted after the six o'clock closing of the letter-boxes at St. Martin's-le-Grand, so that at many towns such correspondence is received in time even for the rural posts—at many more in time for the first town delivery. Between one and the other, a later night mail and an earlier day mail were sown broadcast.

Further, by special arrangements mid-day mail-trains with a travelling post-office have been established from London to many great towns. Letters written in London, or coming up from other parts of the country to London, in the forenoon are delivered by these means in such places in the afternoon or evening.

The provincial correspondence benefits in this way. A letter for Leeds, posted at Brighton in time for the 11 a.m. up train, would go direct to the Great Northern mid-day travelling post-office, which leaves King's Cross at 1.30 p.m., and would be delivered at Leeds in the evening.

It might be thought that these anticipatory and supplementary despatches have cut into the bulk and pressure of the London night mail down. But because of increased activity of correspondence, the night mail duty at the General Post-Office and the district offices has become even weightier than ever.

Parcels, it must be understood, are kept out of the sorting-office in St. Martin's-le-Grand, and to a great extent out of the district sorting-offices, too. For the

most part, they have an assortment and a circulation of their own.

Euston Square is the great point of despatch. At 8 p.m. starts the Highland mail, taking relief bags; at 8.20 the Irish mail; at 8.30 is despatched the down special—the chief mail-train of the night. It was measured on April 19, 1894, and found to be, from the front buffers of the engine to the tail-lamp of the hindmost van, 448 feet 5 inches long. It trails none but Post-Office vehicles, and carries none but official passengers. The down special is followed by the so-called ‘limited’ mail-train, though on the down journey it is no longer limited. At ten o’clock starts the Holyhead mail (taking bags for English and Welsh towns only), and at midnight the last mail-train for Scotland. All these trains are more or less heavily laden with mails, and all are under legal notice.

From the other termini a single ‘notice’ or agreement train suffices for the night mail, usually starting at 8.30 or 9 p.m. We must, however, except the Great Western and the South-Eastern Railways, on the former of which the Bristol, Exeter, and Penzance mail leaves at nine o’clock, and the mail for South Wales at 9.15; and on the latter the Continental mail leaves Cannon Street at 8.23, and the Dover night mail-train at 9.45 p.m.

The great bulk of the night mails is sent by twelve or fourteen trains, prominent amongst which stand the 8.30 from Euston, the 8.30 from King’s Cross, the

nine o'clock train from Paddington, and, on Friday night, the 8.23 train from Cannon Street.

In order of aggregate weight, the despatches at night from Euston Square stand first, next come those from Paddington, then King's Cross, Waterloo, London Bridge, St. Pancras, and Liverpool Street.

In 1838 the London night mail was despatched from St. Martin's-le-Grand by 28 mail-coaches. They carried a gross weight of 4 tons 6 cwt. 1 qr., or an average weight of bags for each coach of 3 cwt. 9 lb. In 1856 the gross weight of the London night mail had increased to 12 tons 4 cwt. 3 qrs. It cannot now be less than 50 tons (and this is wholly irrespective of parcel mails), or nearly twelvefold the weight in *pre-penny-postage* days.

The following comparison may be of interest. In 1838 the mail-coaches which carried mails now leaving London in a concentrated form by the London and North-Western Railway at night were perhaps eight in number. They would take, on the basis of the foregoing average, a total weight of 1 ton 4 cwt. 2 qrs. 16 lb. The bags despatched, in a week, in 1893, by night mail from Euston weighed 169 tons, exclusive of parcels, as compared with about 9 tons in 1838.

Meanwhile, other mails have grown so much in importance that they have outstripped in weight even the night mails. If the aggregate weight of the night mail proper, from the chief and district offices in London, be set down at 50 tons, the weight of the

day and supplementary mails cannot be estimated at less than 55 tons ; so altogether there is a despatch from London every week of between 600 and 700 tons of letter mails. As for parcels, 150 tons go in a week by night from Euston alone.

If mail-coaches were still the sole means of conveyance, and each coach bore a load of bags to the weight of about 15 cwt.—the maximum load admissible—besides passengers' baggage, as many as 140 would have to be despatched from London with the letter mails alone.

Surprise is often expressed that the Post-Office continues to use mail-carts when the railway could afford a swifter, perhaps even a safer, means of conveyance. But the explanation generally lies in the fact that a train is not running at a suitable hour, and to put one on for the mails means great expense. Railway accounts usually show that the average cost per train mile is 2s. or 2s. 3d. Some profit should, of course, be realized over bare cost, and one great company holds that nothing less than 2s. 6d. per train mile is remunerative. Take, then, the post to a town 20 miles distant. The engine, going and returning, would cover 40 miles, and at 2s. 6d. per single mile would cost £5 per trip, which multiplied by the days in the year works out to £1,825 per annum. A mail-cart contractor usually receives about £10 per double mile for the year ; so that £200 would, in this case, compare with £1,825. This disparity, especially when the correspondence is limited

or the gain in time is unimportant, necessarily enjoins caution in making a change from road to rail.

I have referred elsewhere to the extraordinary diligence used in conveying despatches from Queenstown to London, in 1861, on the occasion of the *Trent* affair. When Messrs. Mason and Slidell, Commissioners of the Confederate States during the civil war in America, had been seized by an officer of the United States navy and forcibly removed from the British mail steamer *Trent*, in West India waters, her Majesty's Government demanded their release.

The despatch written to this effect was drafted by Lord John Russell with studious care—it was amended by the Prince Consort, and revised by her Majesty the Queen herself—so that while the demand of the British Government should be clear and precise, not a word should be used likely to arouse antagonistic feeling in a high-spirited and friendly nation. The answer was naturally awaited with anxiety, because peace or war was to be its issue.

The Cunard steamer *Europa* was expected to bring the momentous letter, and I was sent from London to receive her despatches at Queenstown, and in concert with Mr. Anderson, then Inspector of Mails in Ireland, to bring them express to London. But before I could reach Queenstown, the *Europa* had arrived. She hove to off Roche's Point, four miles out, at 9 p.m. on a Monday. A tender brought in her mails to Queenstown Pier, an express steamer took them up the cove to Cork, and an express train

carried them over 166 miles of railway from Cork to Dublin in 4 hours and 3 minutes. They were hurried through the streets of Dublin and taken by rail to Carlisle Pier at Kingstown in 36 minutes; they were ferried across the Irish Channel to Holyhead by the *Ulster*, against a contrary tide and heavy sea, in 3 hours and 47 minutes; and now comes the crowning incident. The London and North-Western Railway Company flashed the mails from Holyhead to London—264 miles—in 5 hours. The 'special' ran from Holyhead to Stafford—130½ miles—without a single stop, at the rate of 54 miles an hour.

In short, the whole distance—515 miles—from Queenstown Pier to Euston Square, including two changes of steamers, a land transit, and three changes of trains, was accomplished in 15 hours. Such was but the reflection of the spirit which prevailed throughout the land at the time of the *Trent* affair.

In 1851 the London and North-Western Company built and exhibited at the Great Exhibition the express engine Liverpool. It was said at the time that one of their engine-drivers offered to take her from London to Birmingham in two hours, if the directors would provide for his wife and children in the event, he euphemistically added, of *anything happening*. But the directors, according to report, wisely and properly declined the bold offer.

Yet the driver was only in advance of his time, and clearly enough foresaw what, with fished joints and heavy steel rails, stout sleepers and a well-packed

permanent way, could in all probability be now safely attempted.

It seems to me a question whether the greater speed of trains at the present day is not due more to the omission of stops than a swifter revolution of the wheels. According to the best authorities, the Great Western Railway Company, about 1846, ran the broad gauge express from Didcot Junction to Paddington (53 miles) in less than the hour.

Such a rate of travelling is hardly surpassed at the present day. Even the narrow gauge did wonders. In 1845 Mr. Nicholas Wood, in a train consisting of an engine and two first-class carriages (Mr. Wood being the solitary passenger), was drawn from Darlington to York, a distance of 45 miles, in 44 minutes. This achievement will compare favourably even with the famous run of the special engine, carriage and van, which on June 24, 1866, took down Mr. Thomas E. Harrison, C.E., from London to Gateshead, when the high-level bridge was threatened by fire. Mr. Harrison left King's Cross shortly after 2 p.m., and arrived at a little before 8 p.m., having accomplished the 270½ miles in less than 6 hours, the average speed being 45 miles an hour.

Later still—in August, 1888—in the days of a too active competition, the London and North-Western and Caledonian Railway Companies ran a passenger train from Euston Square to the Caledonian Station in Edinburgh, a distance of 399 miles, in 8 hours, or at the rate of 50 miles an hour. The train left

London at 10 a.m., called at Rugby, Crewe, Preston, and Carlisle, and reached Edinburgh at 6 p.m. On the east coast the Great Northern, North-Eastern, and North British Railway Companies accomplished a similar feat. Their mileage is a trifle less. On August 31, 1888, the morning express ran from King's Cross to the Waverley Station in 7 hours 27 minutes. Including stoppages (26 minutes was allowed for dinner at York), the average speed was $52\frac{1}{2}$ miles an hour. Excluding stoppages, the running attained an average speed of $57\frac{1}{4}$ miles an hour.

The first occasion of making use of a trunk line of railway—*i.e.*, of the Grand Junction—for the conveyance of the London and Liverpool correspondence deeply impressed Mr. George Louis. He travelled down himself with the night mail coach of July 3, 1837, leaving London at 8 p.m., and keeping to the usual road as far as Coventry. Then, instead of turning to the right hand and passing through Lichfield, the coach now bore off to the left and made for the railway-station at Birmingham. The train was appointed to leave New Street about 7.30 a.m., and was due in Liverpool at 11.30 a.m. The following private note tells the whole story :

Liverpool,
July 4, 1837.

‘DEAR SIR,

‘We reached this place precisely at half-past twelve, exactly one hour behind our time. The loss arose out of various little *contretemps*, which a little practice will set right.

‘ This is the first time in Europe so long a journey was performed in so short a time, and if some very few years ago it had been said a letter could be answered by return of post from London the idea would have been treated as chimerical ; and yet at eight last evening was I in London, and this letter will reach there to-morrow morning, the proceeding of these operations occupying a period of $34\frac{1}{2}$ hours only, out of which a rest of 3 hours is to be taken, thus performing a distance of 412 miles in $31\frac{1}{2}$ hours !

‘ Our mail-coach was before its time full 15 minutes ; notwithstanding at one place we could not find horses except posters, and at another, when posters were found, there was no coachman. Luckily there was [one] on the mail looking out for a place, with which we suited him. To-night, doubtless, all will go right. Some dispute among the amiable contractors I believe to be the cause. I need hardly observe I have adopted proper measures.

‘ Yours very faithfully,

‘ GEO. LOUIS,

‘ Superintendent of Mail Coaches.’

The time-bill of this hybrid journey was approximately as follows :

	<i>Down.</i>			
G.P.O. coach departure	8 p.m.
Birmingham arrival	7 a.m.
Ditto train departure	7.30 a.m.
Liverpool arrival (due)	11.30 a.m.
Ditto (actual)	12.30 noon.

Up.

Liverpool (rail) departure	...	...	...	2.30 p.m.
Birmingham arrival (about)	...	...	...	7.15 p.m.
Ditto coach departure (about)	...	...	...	7.30 p.m.
G.P.O. arrival	...	...	...	6.30 a.m.

The difficulty about horses occurred between Coventry and Birmingham, because of the deviation from the customary Liverpool coach-road.

Not to be compared with the imposing flotilla for ocean packet service, yet not in itself by any means unimportant, is the fleet employed under thirty-seven distinct contracts for conveying mails in British waters, under the supervision of the Inspector-General of Mails, at subsidies amounting to £156,210 a year.

First for comfort, for speed, and security stand the contract packets of the famous Holyhead and Kingstown day and night mail line. Immense paddle-wheel steamers, which I have already described, navigate the waters at such a pace as to cover 63 statute miles in 4 hours, and sometimes in $3\frac{1}{2}$ hours, or at the rate of 18 land miles in the hour.

In July, 1882, it was once a moot question whether the mail-service from Holyhead to Ireland should not find its western terminus in the Liffey at Dublin rather than at the pier of the harbour in Kingstown Bay.

An agreeable command sent me over to Ireland to examine the question on the spot. After exhaustive inquiry, and viewing the matter solely from a postal

standpoint, the conclusion could not be avoided that a change of packet station would be a public misfortune. Perhaps the Government accepted my reasons—at any rate, they did my conclusions—and the new contract established the mail-port at Kingstown for a further period of years.

Then there are the greyhounds of the English Channel, which run to and fro between Southampton, Weymouth, and the Channel Islands. Further, elaborate services have been perfected in the waters which surround the remote, little known, but beautiful Western Islands. They bring the Lews within little more than 24 hours of London; and as for Tobermory, Lochmaddy, Rum, Canna, Coll, and Tiree, one may start from London to-day and be due there to-morrow.

The Post-Office runs its mail-packets up to North Isles in the remote Shetlands, and if the little contract vessel which plies for a subsidy of £52 a year between Walls and Foula omitted a trip, the department would soon know the reason why. Even the Arran Islands, in Galway Bay, on the western coast of Ireland, have their duly appointed packet; and as for Belfast and Larne, are they not the ports of arrival and departure of some of the finest craft to be found in home waters?

Sir John Burns, Bart., the great shipowner of Glasgow, and chairman of the Cunard Company, possesses two lines of mail-packets from Scotland to Belfast. He takes a just pride in the efficiency of this service, and in a speech at the Glasgow Post-

Office in April, 1890, humorously referred to the incidence of postal control exercised by the Inspector-General of Mails by saying: 'If the Irish mails were delayed his master and friend, Mr. Baines, came down upon him; but he gave him the soft answer which turned away wrath by telling him there was fog in the Channel.'

Good luck to you all, noble steamers which four times in the twenty-four hours, while the long days last, salute her Majesty's ship of war in Kingstown harbour—*Ulster, Munster, Leinster, Connaught, and Ireland!* May your paddles never cease to beat! nor yours, beauties of Stranraer and Larne, the *Princess Victoria* and the *Princess May*; and last, but not least, you of the Greenock and Ardrossan lines plying to Belfast—*Dromedaries* and *Hares*, which symbolize the fleetness of four-footed creatures ashore, and *Alligators* and *Seals*, which quickly walk the deep like things of life—an old official salutes you!

For very many years her Majesty's mails were carried to Belfast actually for nothing by the *Stork*, the *Lynx*, and others of like class, the mere honour of the thing satisfying the future old Sir George and young Sir John, until there came a time when, due to no abatement of lawful pride or pure patriotism, circumstances altered. Steam away, friends for close upon forty years! May the swift revolving screws of the new dispensation churn up from the free-running waters of the Clyde and Belfast Lough an ever-increasing advantage to the owner and the State!

CHAPTER XXIII.

BY CORAL STRANDS.

IF one of the two great companies concerned in carrying the mails to 'India's coral strand' should ever return to its first love, and berth once again a powerful flotilla in the new and spacious docks of the flourishing port of Southampton, then might a curious experience be acquired by the globe-trotter.

For, at no greater exertion than is involved in crossing a gangway or two, he should at pleasure pass direct from Orient to Occident; from the mouths of the Hooghley, 7,895 nautical miles from Southampton; from hot, prosperous Hong Kong, 9,635 miles off; from Ceylon and its pearls, the Persian Gulf and its coral, or from the calm waters of the perfect harbour of Sydney, 11,981 nautical miles distant, to the far-away West, by floating palaces under the British flag which carry her Majesty's mails. He might catch sight of the coral reefs of the Virgin Gorda group, and of the Greater and Lesser Antilles; be landed at sugar-making Barbadoes, 3,635 miles from Southampton; or view the

splendid scenery and mountain ranges, but also the cane-brakes and relapsing scrub, of Jamaica. He should, if he desired it, be landed at Colon, 5,252 miles off, to inspect those late devourers of human life, the now abandoned works of the abortive canal of the Isthmus of Panama.

He might travel from one to the other—10,000, nay, even from Sydney to Colon, 20,000 miles—without once quitting steamers which all, in a way, owe allegiance to the Imperial Post-Office.

In considering the case of corporations which have grown up from small things to great ones, the earliest effort, the beginning of all, usually strikes me as the most effective feature of their history; and although admiration cannot be repressed at the sight of the stately *Australia*, of almost 7,000 tons register, lying at anchor, or of the *Himalaya* gliding, outward bound, down the Thames, yet the heart goes out to the valiant, if tiny paddle-wheel steamer, *William Fawcett*, built in 1829, eight years before the Peninsular Company sent her out as their first mail-packet to Lisbon.

She ought to have been laid up in whatever is the nautical equivalent of lavender and preserved to this day, like the famous steam-engine, Locomotion No. 1, which stood for many years outside the Darlington railway-station, or Brunel's broad-gauge giant, the 'Lord of the Isles,' at Swindon.

The Peninsular and Oriental Steam Navigation Company, which have now been identified with the

conveyance of the Indian mails for so many years that it is difficult to realize the fact that the overland route was founded before they came into existence, date from 1837. Their style, however, was the 'Peninsular' Company; they had not become Oriental. The company were formed in this way: The Admiralty, as successors to the Post-Office, had long carried the mails to the Peninsula and other parts by steam-packets from Falmouth. It was resolved to give up the station, and rely on private enterprise.

Then two merchants and ship-brokers, Messrs. Willcox and Anderson, who since 1835 had been running steamers of their own to Lisbon and other ports, made an offer, in 1837, for a regular mail-communication with Spain, Portugal, and Gibraltar, which offer was accepted.

On this basis these two gentlemen, in conjunction with Captain Bourne, R.N. (alluded to in an earlier chapter), established the Peninsular Company. In the Post-Office Daily Packet List of the period, besides the *William Fawcett*, figures another small vessel owned by the new company, the *Royal Tar*, of a gross tonnage of 308 tons. It was this vessel which, in July, 1835, conveyed to San Sebastian a British auxiliary legion, under Colonel (afterwards General Sir) de Lacy Evans, for service under the Queen of Spain, and with it the late Mr. Harrington, afterwards Postmaster of York. He showed me at his house a complimentary certificate from, I think, the General himself. When the legion landed at San

Sebastian, Don Carlos published a proclamation to the effect that all 'strangers' taken prisoners would be shot, which was cold comfort to the sea-sick contingent at his gates.

While the Peninsular Company were feeling their way about the Peninsula, and seeking to recoup the heavy loss of £30,000 which had been sustained before the contractors derived any remuneration from the enterprise, great things were happening in another part of the world directly bearing on their future fortunes. Let me diverge.

Sir James Cosmo Melville, Secretary of the East India Company, has placed on record the fact that the first efforts to open a communication by steam between England and India were made by that company in 1830 and 1831, when the *Hugh Lindsay*, a steamer of from 80 to 100 horse-power, and not much over 400 tons in burthen, performed five voyages between Bombay and Aden and Suez, a distance of 2,970 geographical miles. One voyage was accomplished in 32 days. On the Mediterranean side of the Isthmus, however, steam was not applied regularly to the conveyance of mails until 1838.

But if 1830 saw the first use of steam for Indian postal purposes in the Red Sea, an earlier year had witnessed the successful transmission of despatches. For in 1826 Lieutenant Thomas F. Waghorn, of the royal navy, and some time of the Honourable East India Company's service, had actively promulgated the idea that, by using steamers to and from Suez

and Bombay, and by suitable arrangements through Egypt, the Continent of Europe, and in the Mediterranean, an overland route could be established which should do away with the grievous delays *viâ* the Cape of Good Hope. At length, in 1829, being in London, he was allowed to put his faith to the test, and carry a despatch to the Governor of Bombay, through Egypt, on the understanding that he would bring back a reply within three months.

The gallant officer started for Egypt, made his way up the Nile, and crossed the desert to Suez. There an expected steamer which was to round the Cape had not arrived. Waghorn therefore pushed on in a sailing-boat, fell in with an Indian cruiser, and, reaching Bombay, delivered his despatch. After vanquishing many difficulties, he returned to London with the reply within the stipulated time. That adventurous journey of 1829 was the true foundation of the overland mail-route.

Public attention was aroused, and Parliament began to take notice. But for many years the service, if it can be called such, was of a very uncertain nature.

Waghorn got but little help. He had to rely on his private means, and force conviction as he best could on the official mind. Steamers had to be established on the eastern side of Suez, and Mehemet Ali induced to grant facilities for the transit, the dues of which, Waghorn showed, would bring grist to the Egyptian mill. The arrangements were not framed on a grand or lavish scale. How, from the slender funds

of a lieutenant of the royal navy, was a broad and stable bridge to be built for an empire's passage? Yet alone he did it, although it is probable that the Bombay or East Indian Steam Company eventually improved the arrangements.

Up to 1840 the traveller found on the Nile and Mahmoudieh Canal a steamboat placed there by Waghorn. It would accommodate a dozen passengers. To supplement it were native boats; though when they went and came, who should say? For traversing the 84 miles of burning sands which lie between Cairo and Suez, two rough tilt-carts, horses of a kind, and camels and donkeys, were the best means he could provide. Still, in two or three days, by hook or by crook, Indian passengers found that they had crossed the desert.

The world looked on; but little help or even praise came from any quarter. Hints were freely dropped that coal would cost at Suez £20 a ton, and so by its expensiveness crush steam enterprise. Waghorn got it across in baskets on camel-back for £4 2s. 6d. No difficulty daunted him; and the same unquenchable spirit which carried Gordon to Khartoum half a century later bore up the brave Waghorn in his plan for crossing the Egyptian Isthmus. He spent twelve years in Egypt perfecting these plans. How letters came at all up the Red Sea, and along the Mediterranean to Europe, between 1829 and 1838 there is, however, but little trace.

'I saw,' records Rowland Hill, writing in 1847,

‘for the first time a fellow-labourer in the great cause of postal improvement, Lieutenant Waghorn, who, in establishing the overland route to India, had surmounted formidable difficulties and rendered invaluable services without, I fear, securing either to himself or his family any proportionate recompense. He is a man of singularly energetic appearance.’

Eight or nine years later, at Sir Rowland’s request, I got together the main facts of the successful scheme of this far-seeing but little regarded pioneer of the quickest route to India. Messrs. Smith and Elder, who were his agents, lent me many interesting papers. The story is one of courage and enthusiasm triumphing over inertia, doubt, and indifference.

‘Mankind show themselves strangely forgetful of their chiefest benefactors,’ wrote Dean Burgon in his ‘Life of Hugh James Rose.’ But if it was the case that in the mother country the official ear was deaf to the merits of Waghorn, and its tongue silent in his praise, it was not so in the great colonies of Australasia. A select committee of the Legislative Council of New South Wales, on October 27, 1846, paid him tribute.

‘We have access,’ said they, ‘to a valuable pamphlet published on the subject [of steam communication with Australia] by Lieutenant Waghorn, R.N., being a letter to the Right Honourable William Ewart Gladstone, the present Secretary of State for the Colonies.’ The committee referred to the high authority of the author, ‘whose indefatigable exertions in the promotion of steam between England and her Majesty’s Indian possessions have gained for him the well-merited applause of the British public; whilst his proposed extension of the benefit of this

arrangement to the Australian colonies will also entitle him to the grateful acknowledgments of the colonist generally in these portions of her Majesty's dominions.'

Waghorn was a man not only of singularly energetic appearance, but of extraordinary stature. He went on one occasion to a country fair with a friend. A showman attracted custom to the exhibition of a giant with the usual cry of 'Walk up, walk up!' They walked up, but admission was denied. The show was alleged to be full. This happened a second time, and expostulation following, the showman said to the friend, referring to Waghorn: 'I pray you, sir, take that gentleman away. The fact is, he is two inches taller than my giant!'

In January, 1850, Waghorn died at the age of 49. So, in the fulness of powers, checked, it may be feared, by disappointment and neglect, departed a benefactor of the human race, of whose enlightened aims and great public services time at length has written the memorial.

After forty years of silence, the town of Chatham has done honour to her illustrious son. A spirited statue of Waghorn now stands at the foot of the hill which forms Maidstone Street, and not far from the High Street, in which, it is said, he was born. The City of London shared the cost of the memorial. At the entrance of the Suez Canal also stands a bust of the persistent pioneer. Is there not space for his statue in certain government offices and public institutions in London?

In the forties postage to India was very high. Most of the correspondence for Calcutta, the heavy letters certainly, went by private ship or by private hand, the law exempting letters for the East Indies from the necessity of passing through the Post-Office. But the tax most severely felt was that of one rupee fourteen annas, equal then to nearly four shillings sterling, for expressing a letter by dāk between Calcutta and Bombay. Yet the money was well earned, inasmuch as the dāk covered in eight days a distance of a thousand miles over a country traversed by rivers and without roads.

It may be asked, What was the state of postal communication before the incorporation of the Peninsular Company? An effective answer will be found in the unstudied sketches afforded by the letters* of the Hon. Emily Eden, written from Calcutta and elsewhere when her brother, Lord Auckland, was Governor-General of India.

‘Till we get to Calcutta,’ wrote Miss Eden on November 9, 1835, then 37 days out from Portsmouth, and no further on the voyage than 9 degrees of south latitude—‘a physical impossibility, for we shall be dead of old age before the Cape——’

As a matter of fact, the travellers did not reach the Cape of Good Hope until December 14, having so far occupied 82 days on the voyage. When one has regard to a passage of the *Scot* or the *Tantallan Castle*, which vessels now bring passengers into Table

* Richard Bentley and Son, 1872.

Bay on the seventeenth day from England, the duration of the voyage sixty years ago seems almost incredible.

There was, however, as bad to come :

‘Wednesday, *March 2*, 1836,
‘Off Saugur.

‘At last ! Here we are, after seventy-two days out of sight of land’—153 days from Portsmouth.

After a year in Calcutta, what was of greater interest to the exiles than the arrival of the post, the early fruit of Waghorn’s enterprise ?

‘Think of your overland letters of February 1 [1837], with papers of February 3, arriving to-day—April 12—only two months and a week. To be sure, that overland business is a lottery. We have had in the last five days letters by sea of September and October, up to October 24. Yesterday there came, by a *sailing* vessel, the overland letters of September, October and November 24.’

So in a bunch came the September, October, and November letters in the following March.

Again :

‘I received your overland letter of April 2 [1837] on June 12 [in 71 days, be it remembered].

‘*August 7*.

‘The June letters are actually come. We have letters to June 15—just seven weeks crossing here.’

Home-sickness began to tell, and the delays of the post became almost unbearable :

‘*September 15*.

‘We are in such a way : the July letters won’t come, and have been due these ten days. A horrible idea—war in Egypt, and

all letters stopped, and will have to go back to England, and then round by the Cape! I don't remember ever reading in history of anything so bad!

However, matters began to mend :

‘Calcutta,
‘June 29, 1840.

‘Was woke this morning by the May letters. I have both yours, one by Falmouth [that probably went by the *William Fawcett* or the *Royal Tar* to Gibraltar, and then onwards by stages], and another by Marseilles.’

And then, at last, adieu to belated posts :

‘March 1, 1842.

‘Our ship is dropping down the river. It has 80,000 cockroaches on board : that I know as a fact.’

Better things were at hand. The Peninsular and Oriental Steam Navigation Company had now been established. It has been stated that steam was not applied to a regular conveyance of mails in the Mediterranean until 1838. In that year the Indian service took shape. The East Indian Company sent monthly a frigate from Bombay to Suez ; vessels of the royal navy passed the bags up the Mediterranean.

Some of the Bombay frigates were very slow : 12 or 13 days to Aden were occupied as a rule. Once, however, the *Ajdaha* steamed down in 7 days 3 hours, and it is on record that in 1850 the *Sesostria* left Bombay on January 17 and reached Aden on the 23rd. So quick runs were possible. Six days are now allowed, and two more during the monsoon.

In the year 1839 the British Post-Office made a new Postal Convention with France, and the transit of Indian mails through that country was recognised in a regular way, the French transit postage of letters being fixed at the high rate of 4 francs the ounce, net weight.

As previously, small vessels of the fleet still took the mails to and from Marseilles and Malta and Alexandria. The East India Company provided for the Egyptian transit, as well as for the passage between Suez and Bombay, which, for passengers, who could only take this route by favour of the captain, was one of much discomfort. For the mails it was slow work. Is it not remembered how Albert Smith told the audience in his *Overland Mail*, at the Egyptian Hall in Piccadilly, of the passage of the mail up the Nile, and the struggle to get it and the passengers across the desert to the Red Sea? But, still, where time was regarded, the overland route beat the Cape line hollow. Within two months from Southampton the mails, etc., were landed in Bombay.

Thirty years ago, as I lay in the harbour of Alexandria awaiting the mails from Suez, a stately *ci-devant* P. and O. boat moored itself close at hand. It was the *Himalaya*, a vessel of 3,438 tons and 2,050 horse-power, but with lines and spars—so those who were experts said—as fine as a yacht's, which in 1856 had been sold to the Government as too large for the mail-service. She became one of the most efficient

transports ever known, and is still employed as a troopship.

Since 1882 the *Himalaya* has been in continuous commission, only requiring minor repairs from time to time, although she is now 41 years old. As I write, the vessel lies alongside the wharf at Devonport ready for sea.

In recent years, in adding to their already superb fleet, the P. and O. Company have built a new *Himalaya*. She is close on seven thousand tons (registered tonnage), and is fitted with engines of ten thousand horse-power.

Envious of the great reputation of her namesake, the first *Himalaya*, what has this spacious and powerful vessel done for the mail-service? The contract time for the conveyance of the mails between London and Bombay, *via* Brindisi, is 16½ days. On November 4, 1893, at 2.40 p.m., the new *Himalaya* sailed from Bombay. At 11.36 a.m. on November 17 her mails arrived at Cannon Street—that is, in 12 days 21 hours, or almost four days before the contract time. She has since (May, 1894) improved even on this record.

The 17th was Friday. The *Himalaya's* letters were distributed in the City by the 1.5 p.m. delivery. The same night the overland mail left Cannon Street with replies. It was conveyed from Brindisi by the P. and O. boat *Arcadia* (6,362 tons) as far as Aden. There the *Siam* took over the Indian portion, which arrived at Bombay at 9.49 a.m. on December 3, so

accomplishing the course of post with London—*i.e.*, India to England and back—in 28 days 19 hours. The latest performance of the *Himalaya* is equal to a round trip of $25\frac{1}{2}$ days. How does this compare with Lord Auckland's time, when 153 days for the voyage, *viâ* the Cape of Good Hope, was not too generous an allowance—306 days for the course of post?

Soon it struck the authorities that letters could be sent by way of Gibraltar without going through France at all. There was arranged a postal line, which by a succession of jerks, passed on the mails to destination, from England to Gibraltar by the Peninsular steamer, from thence to Malta by a small Government steamer, and thence by another of the same stamp to Alexandria. From Alexandria the letters went by a boat up the Nile, by a camel across the desert, by a frigate to Bombay. Even if two months were sometimes occupied in the transit, it was better than 4 or 5 months by the Cape.

But this piecemeal work could not last long. The first stage of improvement was entrusting the Peninsular Company with an unbroken service from Southampton to Alexandria. Order and regularity began to dawn. The Admiralty clung for awhile to the Marseilles service, but at length gave it up.

Soon the Peninsular Company became truly Oriental, and established a service on their own account from Suez to Aden, Ceylon and Calcutta. The despatch from this country, on September 24, 1842, of the *Hindustan*, the first steamer sent out by the P. and O.,

to Calcutta to open communication with Suez, was treated as a national event, the ships in harbour dressing with flags and the public prints of the day notifying the occasion. Well might Reginald, Lord Bishop of Calcutta, predict that 'steam with India would open the flood-gates of numberless blessings to mankind.' In 1844 the company contracted to carry the Calcutta mails; but the East India Company held on stoutly to the Suez and Bombay service until 1854.

So monthly by the old line, and monthly by a branch packet from Aden out of the new line, Bombay at length received an English mail twice in every month. This was a great advance, but the weekly mail from London to India was still far distant.

It may here be remarked that although the Peninsular and Oriental Company, no doubt, have had, like most great enterprises, serious difficulties to surmount, and especially so in early years, yet in another and most important respect they have been highly fortunate. In the stormy, intricate, and then little-known navigation of the seas east of the Bay of Bengal, heavy loss from accidents to vessels was not improbable. But up to the year 1857 the service to China, which commenced in 1845, cost them no more than two ships, viz., the *Pacha*, lost on July 31, 1851, in collision with another of the company's vessels, and the *Douro*, wrecked May 26, 1854, on the Paracels, a reef in the northern part of the China Sea. She had been disabled in a typhoon, and being unmanageable, was carried by the storm wave on to

the reef. There was happily no loss of life in either case. The mails were saved.

Bearing in mind the difficulties that had to be encountered in those early days in navigating the China seas, it seems to me that it was a great achievement that the China service should have been carried out with losses relatively so small. A collision might have occurred at any part of the globe, and the cause of the *Douro* being lost on the shoal was the incidence of a typhoon of unusual vehemence.

As a proof of the comparative immunity from maritime casualty which the P. and O. steamers have enjoyed, I may state that, on an average capital employed of approximately two and a half millions of pounds each year, the company's losses, as underwriters of their own ships, have only averaged during the last thirty-six years the small sum of 21s. 4d. per cent. per annum. When this figure is compared with the charge which underwriters make for insuring steamers for the year—viz., from £5 5s. to £10 10s. per cent.—it will be seen with what relative freedom from loss the P. and O. vessels have been worked.

The overland route by 1844 was firmly established, but it had not ceased to be a novelty. The *Illustrated London News* of July 6 gave a graphic description of the transit of the mail through Folkestone. After explaining the method of conveyance from Bombay to Suez, across Egypt, and up the

Mediterranean to Marseilles, the account proceeded thus :

‘ At this port the papers for France are delivered, and an abstract of the Indian news drawn up for the instant information of the French and English Governments. This abstract is sent by telegraph [meaning the semaphore] to Paris, and thence to Boulogne by a one-horse *malle-poste*. In France the telegraph usually occupies the top of a church-tower.

‘ On reaching Boulogne, the “abstract” India mail-express, bearing on its envelope the significant words “*Très Pressé*,” is placed on board a steamer, or in extreme cases a sailing-smack, and forwarded with all possible speed to Folkestone. In approaching this port, the vessels hoist a signal of the “mail” called a “whiff,” or pennon tied at the end in a knot, to give notice to the harbour-master and the railway authorities to have all things in readiness to speed it on its flight to the Metropolis; but if the coast be made during the night, a red light under her bows and a white light at the masthead are the only signals given. The answer to these signals from the pier-head is made by a double white light.

‘ The passage by steam vessels has varied from 2 hours and 40 minutes to 14 hours, and by sailing vessels from 3 hours and 55 minutes to 48 hours. Immediately on the mail-signal being observed, the railway harbour-master, the indefatigable Mr. Faulkner, makes the necessary arrangements for its re-

ception. If it be high-water, these are simple and common-place enough, as the despatch has merely to be landed and sent by the mail-omnibus to the station [no doubt what is now Folkestone Junction on the main line], a journey of about a mile, performed amid the shouts of the company, who usually assemble in great numbers to welcome its arrival, at the break-neck pace of 20 miles an hour.

‘ But if it be low-water, the weather rough, and the time night, a scene of exciting adventure ensues. A galley—a long, clear-water boat, manned by some eight or more stout fellows, under Mr. Faulkner’s command—is launched from the beach and sent off to the approaching vessel. On reaching it a large blue light is fired, and in the glare of its ghostly fume the captain of the steamer descends, bearing the express, and is immediately rowed to the shore, where, if it be dark and a heavy surf rolling, a number of fishermen are usually posted with flambeaux to light them through the breakers. On landing, the express is committed to Mr. Faulkner, who carries it to the train.

‘ The abstract mail having thus escaped the perils of the water and reached the Folkestone station in safety, is placed in the carriage of a special train, which is usually in waiting a period, more or less, of three days for its arrival, and despatched in less than two hours to the Metropolis. The *Times*, the *Herald*, the *Chronicle*, the Government, the stockbrokers, have often their separate expresses. Each of these

despatches costs the parties upwards of £100 from Marseilles to London, £50 from Marseilles to Boulogne, £35 for the voyage and £25 for the special train.

‘The abstract usually anticipates the mail itself by about two days. While the ‘heads’ of the intelligence have been progressing at the rate we have described, the iron boxes of details, about 2 feet long and from 30 to 40 in number, are packed in a hearse-like coach, called by the *estafettes* a “fourgo,” which has been dragging its comparatively slow length along at the rapid pace of 63 hours from Marseilles to Boulogne, on reaching which it is shipped on board the mail-packet and sent direct to Folkestone, and thence by rail to London; but formerly—we believe even to the arrival of the present mail—it was sent to Dover and despatched by coach to London, a proceeding attended by the loss of at least 10 hours.’

The Peninsular and Oriental Steam Navigation, being now in full operation, became known as the ‘P. and O.’ It was time they were well rooted in India, for the Mutiny was at hand. In the Crimean War their ships had carried 2,000 officers, 60,000 men, and 15,000 horses; during the Mutiny the numbers conveyed were less, but the service was still more arduous and urgent. They extended their sailings, or, rather, set up a new line from Southampton to Alexandria, touching at Malta, and established services to Bombay. They put on two fast paddle steamers—the *Vectis* (No. 2) and the *Valetta*, of

about 850 tons, and more than 1,000 horse-power—from Marseilles to Malta and Alexandria. I remember both vessels very well, and have taken passage in the former to Egypt. A terrific story was once told to me about the *Valetta*. She, like the *Vectis*, had paddle-wheels of great size and weight, which, actuated by the powerful engines, produced high speed. On a voyage up to Malta the rate of the *Valetta* was much reduced, because of a flaw suspected in the crank-shaft next the port paddle-box. It was said that if the engines were urged the flaw might develop, the shaft break, the paddle-wheel tumble off, and the ship heel over to starboard! Happily, nothing of the sort occurred.

To see the *Vectis*, bound for Marseilles, give the *Sultan*, bound for Southampton, a good start, and overhaul her by sundown, imparted to me much the same sensation as the winners' experience when one University boat passes the other at Barnes Bridge; but, then, the *Sultan* was double our tonnage, and not half our horse-power. One vessel would make the run from Alexandria to Marseilles (1,465 miles) in six days; the other would perhaps take fourteen or fifteen days to accomplish the 2,975 miles to Southampton.

Travelling by the overland route was very expensive. Mr. Murray Gladstone left Calcutta for England, *viâ* Egypt, in 1851. He paid £100 for the voyage to Suez, and in covering the 238 miles which lie between Suez and Alexandria £12 more. From

Alexandria he went by Trieste to London at a further expense of £48, so that the entire journey cost £160. The fare from London to an Indian port is now only £55.

But that was in the days when prices generally ran very high : when for the carriage of opium from India to China would be paid 8 or 10 dollars, or even more, a chest, and that, too, on 60,000 chests of Malwa and Bengal opium, and when as much as £3,000,000 sterling of Sycee silver would be received in a year from China at Bombay in return for the drug. What would now be said to £16 per ton measurement for cargo between two Eastern ports ?

The Pasha of Egypt took not unkindly to the British transit. No wonder ! If he received £12 a passenger for conveyance from Suez to Alexandria, he took also a duty of £8 a ton for the merchandise.

To Captain J. H. Wilson, of the Indian navy, belongs the distinction of having commanded the first steamer which ploughed the waters of the Red Sea, and which in 1830 took the first mail ever carried by steamer from India to Egypt.

The East India Company's boats out of the way, and the heavily subsidized French steamers not as yet in Indian waters, the P. and O. for a time stood alone in that service to the eastward of Suez which, in later years, has attained, in size and character of the mail-packets, and in the frequency and extent of the voyages, to such magnificent dimen-

sions. They served India, China, Australia, and even Mauritius, with the mails. The extension to Japan was yet to come.

My recollection is that the mail-subsidy in those days was as much as half a million sterling.

Many years have passed since the discussions which took place in Parliament about the Suez Canal, and which at the time impressed me with the idea that reshipment of the mails to Alexandria and Suez was an order of Nature which nothing could change. Lord Palmerston insisted on the chimerical nature of M. de Lesseps' scheme, and the English engineers were strong and clear in their opinion, that, as soon as the canal was made, differences of level between the Mediterranean and the Red Sea would cause it to silt up.

However, the Frenchman having shown the way across country, and the canal being opened, the 'P. and O.' with boldness and energy reconstructed their fleet, built vessels suited to the new navigation, and, though with foreign and domestic competition springing up on all sides, established themselves more firmly than ever as the great mail-carriers to the East.

This company from their birth have commanded the services of men of undisputed energy and capacity, such as were Messrs. Wilcox and Anderson, their earliest managers. For commercial ability, the late Mr. James Allan, the secretary of the company at the time of their formation, and afterwards a

managing director, always struck me as belonging to the first rank ; while for geniality and persuasive presence the late Mr. Henry Bayley was second to none. But in these latter days, since the opening of the Suez Canal, the architect of the company's fortunes is their chairman, Sir Thomas Sutherland, K.C.M.G., Member of Parliament for Greenock, and formerly one of the company's managers in the Far East. He and Mr. F. D. Barnes, as managing directors, practically steer this great organization.

Figures standing alone seldom convey an adequate idea of magnitude. If it be stated that the Peninsular and Oriental Company employ 54 ships in carrying the mails, and that the aggregate registered tonnage is 234,000 tons, the effect, though great, may be indefinite ; but when the facts are put in another way, they must strike the least reflective mind. A mail-coach drawn by four horses required an equipment calculated on the basis of a horse for each mile traversed. So the London and Birmingham Express Day Mail-coach employed more than 100 horses. Regarding, then, the company, as great carriers, it is the fact that they use in motive power the equivalent of 2,400 four-horse coaches plying between towns 100 miles apart ; in other words, the propelling energy of the engines of their fleet is equal to the effective energy of 239,550 horses.

Shades of Vidler, of Sherman, of Chaplin, of Benjamin Worthy Horne, of Mrs. Nelson, of the hundred and one contractors for the upper ground,

and the lower ground, and the ground which lay midway! how would you have regarded a contract for two or three thousand mail-coaches in the memorable thirties?

Whether Waghorn ever foresaw what his venturesome trips up the Red Sea and across the sands of Egypt with the homeward despatches, between 1829 and 1835, would lead to, who shall say? But could he have conjectured that one day an English company would spend two millions three hundred and twenty thousand pounds in building steamships for giving full effect to his plans—that most of those ships would be equal to taking on board at need a regiment of soldiers or the population of an English village (two, indeed, did actually embark 1,500 troops during the war in Egypt, and sailed, the one at less than ten and the other at less than sixteen hours' notice, for the scene of operations), and would transport per voyage, in cargo, specie, and ship, the worth of, perhaps, half a million of pounds sterling—surely his valorous heart would have glowed with sacred joy, and all his exertions, sacrifices, and tribulations been richly repaid by anticipation. He certainly realized no other payment, and barely saw the day of the fulfilment of his schemes.

It is Friday, at night, in London. The Indian and Australian mail, *via* France and Italy, is being despatched. The colonial division on the upper floor at the General Post-Office has sorted its last letter

and tied and sealed its last bag. The mail-vans have received the mails in the courtyard below. The yard-officer has seen to a punctual start. They rattle down Cheapside and into Cannon Street Station not a second too soon.

At 8.23 p.m. the mail-train guard gives the signal, and away across the Thames and the pleasant garden of Kent the South-Eastern Railway Company whisk the overland mail with letters for well-nigh half the eastern hemisphere.

At Calais, the British officer in charge of Indian and Australian mails through the Continent of Europe awaits the arrival of the 8.23 despatch from London. He has seen to the safe custody of such mails as have been received in advance. For throughout the day the London office has sent large instalments. The object has been to lighten at night the final transfer from the train to the boat at Dover, and from the boat to the special mail-train for Brindisi, now drawn up on Calais Quay. Already have the passengers for India started by the special train for Brindisi of the Peninsular and Oriental Company.

A long, fatiguing ride of nearly 1,400 miles has the officer in charge of mails across Europe at the best of times, taking from midnight (or thereabouts) on Friday, to 9.20 p.m. on Sunday. A journey by the Mont Cenis Tunnel is not the less arduous from carrying with it a weight of responsibility.

A P. and O. steamer leaves the Thames for the Mediterranean with the parcel mail every week—


usually on Thursday. It calls ten days later, on Sunday, at Brindisi, and there receives the overland letter mail, sent away from London eight days after the departure of the steamer from the Thames.

The P. and O. vessels, after leaving Brindisi, sail alternately to Bombay and Adelaide. On the Bombay voyage the Indian passenger, who enters his cabin in London, keeps possession of it until he arrives at his destination.

On the voyage of the Australian packet, mails and passengers for Bombay are transferred to a branch steamer at Aden (so securing a weekly service to India); the mails for Ceylon are handed over to the post-office at Colombo; the mails for the Straits Settlements and China are transferred in Colombo Harbour to a packet bound for Hong Kong and Shanghai; and the main steamer from London goes forward to Australia—*i.e.*, to Albany in King George's Sound, Port Adelaide, Melbourne, and Sydney.

In the case of the Orient Line, a vessel sailing in alternate weeks from the Thames with the parcel-mail picks up the overland letter-mail at Naples, and then shapes its course for Ceylon and Australia. This secures a weekly mail to the antipodes.

In 16½ days from London the Indian mails will be due at Bombay, while those for China will take no longer than 32 days in the voyage to Hong Kong, and 3 or 4 days more to Shanghai. These are contract times, not to be exceeded; but what good and spirited management may accomplish in giving even



a better service than Parliament pays for has already been seen.

From the coral formations of the Indian Ocean, the Persian Gulf, the Red Sea and Mauritius to West Indian lagunes and the Coral Islands of the western tropics is a long way.

For half a century the Royal Mail Steam Packet Company have carried on the mail-service to the West Indies with indomitable energy and unsurpassed punctuality and despatch.

The Admiralty, it may be explained, which on April 5, 1823, had taken over the Falmouth packets from the Post-Office, continued to maintain postal communication with the West Indies, Brazil, etc., from that port for nearly twenty years. As long as sails had to be relied on, the services were kept up by the use of 10-gun brigs, which have been described as 'pretty-looking craft, apple-sided, with a clean run under the counter.' By good luck and fair wind they made the West Indies in about 28 days from Falmouth. They were, however, ill fitted for the service, and acquired the lugubrious cognomen of 'coffin' ships.

The West India mail for embarkation at Falmouth, in the thirties, consisted of six sacks, each 7 or 8 feet long, and very bulky. Occasionally the mail reached nine sacks. They were all made up in London, letters from the West of England being sent first to London to be enclosed in the mail-bags, and then sent down again for embarkation at Falmouth.

The homeward mails were carried direct to Exeter and there reassorted.

On the outward voyage the first port reached was Funchal, in Madeira. From thence the boats ran to Barbadoes, where the contents of the sacks—mainly letters—were again sorted and sent on to destination as opportunity offered. The mail-boat itself went on to Jamaica before the trade-winds. As may be supposed, it was quite another voyage to get back from Jamaica to Barbadoes against the ‘trades,’ and sometimes weeks were occupied in sailing out of these remarkable air-currents. It is singular how history repeats itself. With sails, we sent the Transatlantic boat to Barbadoes; with steam, to St. Thomas, far away to the northward; and now, with swifter steamers, again to Barbadoes. However, a British port is, of course, the natural rendezvous of British steamers.

The time likely to be occupied in the round trips of the Falmouth packets was officially estimated as follows: To and from Jamaica, 12 weeks; America, 9; and Brazil, 20. To and from Mexico 18 weeks, and the round trip to Gibraltar 20 days.

The return to England from the West Indies was, however, always uncertain, the mail-boat which left in March sometimes coming home before that which left in January; and sometimes two boats, which ought to have been a month apart, arrived at Falmouth on the same day.

When this happened, the mails were more than one

coach could conveniently stow away, and two vehicles were employed between Falmouth and London. As they went by different routes, a race usually took place. Men on horseback were sent in advance to warn the changing stations to have horses harnessed before the arrival of the coaches, the object of each being to establish in the eyes of the public a reputation for superior speed.

As the wealth of the country increased and trade relations, not alone with the colonies on the east of the Isthmus, but with South and Central America, grew in volume, it was clear that this state of things could not long endure. The same policy which suggested the relinquishing by the Admiralty of the conveyance of mails to the Peninsula pointed to the transfer to private hands of the conveyance of the West Indian mails. In 1839 the Royal Mail Steam Packet Company was formed to do the work by means of first-rate steamships; the old 10-gun brigs were given up, but some of the commanders were retained in the service of the new contractors. The familiar Cornish names of Restanick, Vallack, and others were still known, for a time, amongst West Indian corals and palms.

The company commenced their adventurous career by despatching the mail steam-packet *Thames* (under a contract made in March, 1840) on January 3, 1842, from Falmouth. At Southampton, which was then, as it is still, the company's marine headquarters, there was little of that extensive dock accommodation

which has been provided in later years, and Falmouth, which had long been the port of despatch, continued for a time to be so.

In consideration of a subsidy of £240,000 a year, the company sent their packets twice a month to Barbadoes, and from thence to British and Dutch Guiana, to ports on the Spanish Main and the Isthmus of Panama, and to the whole chain of islands in the Caribbean Sea, and once a month to the Gulf of Mexico, and to New York and Halifax.

The subsidy, large as it was, proved inadequate, as the receipts from traffic were limited—passengers were not over-numerous, trade was undeveloped, and cargo as a material source of revenue was as yet undreamt of. The expenses were enormous, chiefly owing to the complex arrangements of routes, involving an immense amount of mileage, a large portion of which was unproductive.

Every now and then a shipment of specie recalled the days of the rovers of the Spanish Main, when Drake and Hawkins spoiled the Spaniard, took his plate ships, and pillaged his Central American towns. Once the *Teviot* received on board at Vera Cruz two millions seven hundred thousand dollars, which weighed 130 tons. A graphic account is given of this by Captain Woolward, one of the company's commanders, in a recent book.* All this precious metal was shipped for Southampton. At St. Thomas

* 'Nigh Sixty Years at Sea.' London: Digby, Long and Co., 1894.

the *Thames* transferred to the *Teviot* five hundred and seventy thousand dollars more—in all there were more than three millions and a quarter of silver dollars in one mass. When this valuable freighting arrived at Nine Elms Goods Station, no fewer than eighteen four-horsed Pickford's waggons were required to convey it to the Bank of England. The consignment blocked up the street from nine o'clock in the morning until three in the afternoon. Nothing had been seen like it in the City since the arrival of the Chinese indemnity, which was paid in silver many years ago.

The company's headquarters in the West Indies were eventually shifted from Barbadoes to St. Thomas. There, sloping from the red-tiled roofs of the town at their base, rise three conical hills, covered with verdure to the summit. Overhead the tropical sky. In the deep water outside the main harbour cruise sharks of prodigious size; in the lagunes, or almost land-locked bays within, were then the coal-wharves. To give such a wide berth was the wisest policy. Near at hand is the Anegada coral reef, on which many a noble vessel has left its bones.

The circumstances of traffic and so forth just stated, and the misfortune of the company in losing several ships, led in 1846 to an amended arrangement. The mileage was greatly reduced. Subsequently other contracts were entered into, and notably the Brazil and River Plate service—which hitherto had been performed by gun-brigs—was added to the

company's responsibilities, but with an increase of only £30,000 a year to their subsidy.

Again they had to encounter serious losses. Their new Transatlantic steamer *Amazon* was burnt at sea, with melancholy consequences, on January 4, 1852, two days after leaving Southampton. The new ship *Paramatta* was lost on the Anegada reef on her first voyage out to St. Thomas in 1859, while the great hurricane in the West Indies of October 29, 1867, played havoc with the shipping and trade. The splendid mail-steamship *Rhone* was driven ashore at Salt Island, and sank in deep water. Her masts were, however, visible for a year or more. The contract packet *Conway* was dismantled and driven ashore at Tortola; the *Solent* and *Tyne* were dismasted, but rode out the hurricane at sea; the *Wye* steamed out of St. Thomas for safety, and was totally lost on Buck Island; the *Derwent* was thrown ashore in St. Thomas Harbour.

When Mr. C. Bennett was Surveyor of the Post-Office in the West Indies, he gave me a graphic account of the damage wrought on the island of Tortola by the storm which well-nigh destroyed the company's fleet:

'The hurricane came on, which swept away a good house, the huts of the labourers, and killed the overseer and two other persons by the falling inwards of the walls. Many people sustained contusions. The force of the wind was so great that it stripped up the pitch-pine flooring of the house, 40 feet square, until there was not a piece 4 feet long by 6 inches wide. All the other farm-buildings were utterly demolished by the hurri-

cane, and for many days most of the population of the estate had only sheds against trunks of trees to shelter them. The morning after the hurricane the island was a scene of utter desolation. Not a leaf was left on a tree, the grass was stripped of its greenery, and only its long canes remained.'

Such disasters as happened to the mail-steamers would have crushed the life out of most marine enterprises. Yet the Royal Mail Company's spirit was not dimmed. They did not even allow the regularity of their service to be checked.

Taking a rapid decision when the storm was over, and undismayed by the ruin around and the loss of the homeward Transatlantic packet, the company's superintendent at St. Thomas despatched an inter-colonial boat with the mails and passengers for Southampton, and modified the itinerary of the branch routes, so that to all appearance things went on much as usual. But these are the moments when weight of responsibility and wearing anxiety, though they may not meet the public eye, can well be conjectured. The directors showed a bold front—

'It will be satisfactory to the shareholders,' said they in their report of April, 1868, 'to know that, notwithstanding the loss and damage of so many ships of the company's fleet, the superintendent at St. Thomas, by prompt arrangements, prevented any failure of the mail-service, and although the company's operations have since been performed under great disadvantages, yet the service throughout has been maintained.'

Behind so brief a statement lay the persistent courage of Englishmen who never know when they are beaten. Nor, indeed, were they. The Royal

Mail Company replaced the *Wye* by buying the *Corsica* (renaming her the *Wye*), and the ill-fated *Rhone* by the *Neva*, then being built by Caird. They ordered new steamers, larger and swifter ones, and they firmly established to and from Southampton and all parts of the West Indies, to the chief ports of Brazil, and to the River Plate, mail-services unsurpassed for completeness and regularity. The beautiful paddle-wheel *Atrato* of my time, of 3,126 tons and 800 nominal horse-power, which used to perform the voyage of 3,622 miles between Southampton and St. Thomas in 14 days and 9 hours like clockwork in the early sixties, when it was my function to keep the log in the packet branch of the Post-Office, is replaced by a still more beautiful *Atrato*, of modern build and 5,140 tons, which, propelled by screw and fitted with engines of 6,779 indicated horse-power, makes the Transatlantic voyage, still like clockwork, and even at a higher rate of speed, in 11 days 12 hours to Barbadoes.

On the Brazil and River Plate line are some of the finest steamers afloat. The *Nile*, which is within an ace of 6,000 tons register, and of the indicated engine-power of 7,500 horses, transports the mails in 17 days from Southampton to Rio de Janeiro, and in 4 or 5 days more to the River Plate. As I write, the *Danube*, a sister ship to the *Nile*, is making her trial trip down the Solent. She is to go to the Brazils, too.

Throughout the half-century, the Royal Mail

Company's services have been constantly extended and improved, notwithstanding that the postal subsidies, so far from increasing, have rapidly dwindled. Every five years or so down goes the financial thermometer of the Exchequer, so that that which at one time marked over a quarter of a million of money now records only £92,500 as the annual subsidy. Still the management is marked by unabated energy ; still the proprietors keep the fleet abreast of the times. Admiral A. J. Chatfield is their managing director. They had a devoted servant in Mr. R. T. Reep in the past. Can any testimony be too warm which points to the merits of Mr. J. M. Lloyd, the company's secretary, in the present ?

As in 1842, so more than half a century later, the ships of the Royal Mail Steam Packet Company are amongst the best appointed of the great postal steamers. No Post-Office servant, and probably no private citizen, could do otherwise than rejoice at a general revival of prosperity in the West Indies, and, as one result, abundance of additional and long-sustained profit to the coffers of this courageous corporation.

CHAPTER XXIV.

OVER THE DEEP BLUE SEA.

If the post ran slowly in the thirties to the Cape and India, it naturally went no quicker to the little-known if extensive and promising colonies in the antipodes. What of those remote regions, with their spacious harbours and vast solitudes, their once tardy mails and high-priced letters ?

‘We are sailing,’ wrote Henry Kingsley,* ‘slowly along, under high-piled forest-capes, more strange, more majestic and more infinitely melancholy than anything we have seen in our strangest dreams. What is this awful, dim, mysterious land, so solemn and so desolate ? This is Australia.’

He had in his mind’s eye New South Wales, and especially that district which now forms the important and still rising colony of Queensland. When he wrote, the settlements had found their feet, and colonial legislatures were beginning to send men of eminence to European councils.

* ‘The Hillyers and the Burtons.’ Ward, Lock and Co. London.

It was not so at the date from which this narrative begins. Sixty years ago Australia, from the postal point of view, was little more than a geographical expression. In the official table of rates of foreign postage, dated November 23, 1830, it has not even a heading to itself, but is grouped under the East Indies. 'Letters for Australia, New South Wales, including Sydney, Swan River and Van Diemen's Land,' says the table, 'which may be sent through the Post-Office, are liable to a sea-postage of two-pence each letter if under the weight of three ounces, and one shilling per ounce if above that weight, in addition to the inland rates to London.'

So a letter could at all events be got out, say, from Devonport to Australia for 1s. 1d., subject to a local sea-postage rate of 3d., 4d. or 6d. on arrival. But the name of the antipodean continent was not yet quite familiar to ordinary English ears.

Sydney, on the shores of Port Jackson, it is true, had been founded for half a century, and as the capital of the province which subsequently maintained a Captain and Governor-General, it was the metropolis of the Australian group. To and from Port Jackson sailed nearly all the vessels which made for Australia.

Freemantle, at the mouth of Swan River, Hobart Town, because of the convict establishments, Botany Bay, for the same reason, rather than for the richness of its flora which had provoked Dr. Solander's enthusiasm, and Moreton Bay, perhaps made up the sum of popular European knowledge of Australia.

The towns and cities which now fringe the Great Australian Bight, where were they? Where were Melbourne and Adelaide? where even Perth and Albany in the west, and Brisbane and Rockhampton in the tropical far east?

The Colonial Office List is a sure authority on all colonial matters. From that publication it may be gathered how comparatively recent is the prosperity—even the very origin of Melbourne.

In 1788, on the shores of Port Jackson, a few miles to the north of Botany Bay, Captain Arthur Phillip, R.N., established a permanent settlement. This was Sydney. But for nearly ten years afterwards nothing was done towards the exploration of the southern shores of Australia. At length, George Bass, a surgeon in the royal navy, started in a whale-boat, manned by six seamen, and, rounding the southernmost point of the Australian Continent, entered Western Port on June 4, 1798. He returned to Sydney, however, without discovering Port Phillip Bay, which was first entered on January 5, 1802, by Acting-Lieutenant John Murray, in command of the armed brig, *Lady Nelson*.

For the next twenty years the district attracted but little attention. Then two explorers, Hume and Hovell, made their way overland from Sydney, and on their return gave a satisfactory report of the country. The first permanent settlement in Victoria was formed in 1834 at Portland Bay by Mr. Edward Henty, from Van Diemen's Land, who commenced to

till the soil, run and breed stock, and carry on whaling operations. But the capital was eventually founded at the northern end of Port Phillip Bay in 1835 by John Batman and John Pascoe Fawkner. They were soon followed by others, who brought stock with them and commenced to push their way into the interior. After a time, shiploads of emigrants arrived from the United Kingdom, and ship-letter mails began to be more frequent. Regular government was first established under Captain William Lonsdale, who, having been sent from Sydney to take charge of the district of Port Phillip, landed on September 29, 1836. On March 2 of the following year Sir Richard Bourke, the Governor of New South Wales, visited it, and named the metropolis, after the Minister who was long to guide the young Queen's hand, Melbourne. On July 1, 1851, the settlement was separated from New South Wales, and created a separate colony under the name of Victoria. Shortly afterwards rich deposits of gold were discovered, which led to a great influx of population. A new constitution, giving responsible government to the colony, was proclaimed on November 23, 1855.

That, in a nutshell, is the early history of Port Phillip and the great colony of Victoria.

As the thirties grew, and the city on the shores of Port Phillip began to raise its head, it took to letter-writing as a municipal duty, and Melbourne now and again was heard of in St. Martin's-le-Grand. Still, the letters were relatively very few, ten thousand in

a year perhaps between Port Phillip and Great Britain being the total.

So, too, a long way up Investigator Strait another city was founded, which perpetuates the name of the good Queen-dowager, and Adelaide took its place amongst the growing townships. South Australia really dates its history from a settlement on Kangaroo Island, and also from 1836, when, on September 10, a dinner was given at the Albion Tavern, in Aldersgate Street, close to the Post-Office, to Captain Hindmarsh, R.N., its first and then newly-appointed Governor.

Western Australia, described in the Act of 1835 as 'on the western coast of New Holland,' had been settled under the Act of the last year of George IV.'s reign.

Letters for outlying parts were sent to Sydney for distribution by the local posts which went along the coast by schooner once a month to Adelaide, and once a fortnight to Melbourne and Launceston, or by inland post twice a week (600 miles) to Melbourne. There was already a colonial Postmaster-General, Mr. John Raymond, who from the late twenties to, at least, the early fifties, ruled the posts in New South Wales, and he naturally took the view which long prevailed, that Sydney was the postal centre of Australian interests, and should be the first and best served with its European mail.

There was reason on his side, for as late as the middle forties more than six times as many letters

from the mother country were received at Sydney as at other ports. Even in 1845 Melbourne contained only ten thousand inhabitants, whereas Sydney was already a city with a population of 200,000 souls.

In 1843 two events directly bearing on the future prosperity of Australia occurred—a legislative council was established at Sydney, and a postal commission was sent out by the mother country. The latter was in due order, whether done at the instigation of the colonists or not, for by law the Postmaster-General of the United Kingdom is still held to have authority over the rates of postage leviable in the colonies—at any rate, to places outside colonial jurisdiction—and his power may legally extend even further. At all events, unless by Order in Council or Act of Parliament the management of postal arrangements within a Crown colony is specifically delegated to the colonial authorities, there the orders of the Postmaster-General run until he himself shall tacitly, or by instrument, waive his legal rights.

The posts in Nova Scotia were, almost within my own recollection, administered by the Imperial Post-Office, as were those of the British possessions in the West Indies, China, and the Mediterranean, until the missions were fulfilled of my colleagues of the past, Messrs. Anthony Trollope and E. H. Rea. So as regards Australia, although the colonists had hitherto managed such posts as existed, the view presented itself to the authorities at home that the services, both in Australia and New Zealand, should come under the

control of the Imperial Post-Office. The commission sent out consisted of Mr. E. J. Smith, already mentioned; Mr. James, afterwards Postmaster of Glasgow; and Mr. R. R. Smith, a Surveyor of the Post-Office in Ireland; and in the years 1845-6 and 1847 they held an inquiry into the rates of postage, mode of communication, and all matters connected with the antipodean Post-Offices.

In the result, the opposite policy was followed by leaving such colonial posts as were already locally managed in the hands of the colonists, and by transferring to local control other posts whereof the Imperial authorities still held the reins.

However, without awaiting the report of its commissioners, the Post-Office—stirred into activity by the accomplishment of penny postage, by Parliamentary Committees, by the spirit of the new Legislative Council, or by the representations of Sir George Gipps, Governor of New South Wales—took a decided step. In conjunction with the Admiralty, it gave form and substance to an Australian postal service by despatching, from January 1, 1844, a regular mail once a month, by subsidized sailing packet, from England to Sydney. Three separate tenders were received: one of £2,000 for the round trip, one for £600 per mail, and a third (which was accepted), from Phillips and Tiplady, for £100 for a single voyage, or £150 the round trip.

What the department expected to gain by this course is doubtful. The payment agreed to be made

was too small to induce shipowners to strive after speed or punctuality, and, as a matter of fact, the mail-packets were beaten by the private ships. The former certainly started on a given day, but what would be the duration of the voyage none could predict. In fact, whether by ordinary vessel or by mail-packet, voyagers to and from Australia had to spend an appreciable part of their life on the deep blue sea. The sailing packets with the mail occupied, on an average, 119 days to Sydney, *viâ* the Cape of Good Hope, and they were 138 days coming home by Cape Horn. The course of post on this basis was, therefore, not less than 257 days, or $8\frac{1}{2}$ months. The *Meg Merrilies*, carrying a mail, got out to Sydney, it is true, in 3 months and 14 days; but, on the other hand, a less-favoured vessel took 5 months and 1 day.

The private ships averaged only 113 days per voyage. The postage of a ship-letter, too, was cheaper, even though it had been raised from 2d. to 8d. Amongst other changes, the Post-Office in the early forties had fixed on a packet-rate of 1s. per letter, which franked collection and delivery in the old country, but only carried the letter to the sea-board of the new one. It then became liable to a colonial sea-postage of at least 3d., besides inland rates; so that while the ten thousand people in the district of Port Phillip could receive a ship-letter direct from London for 8d., plus a local charge of a few pence, a packet-letter coming *viâ* Sydney and by the Bush mail cost half a crown.

But, as I have said, the total correspondence dealt with in Australia was extremely small. In twelve months, about 1845, the letters which passed through the post to and from the mother country, whether direct or through India, were only a quarter of a million. The colonists wrote rather more letters to England than the old folks at home wrote out to them.

Newspapers were more numerous; and printed publications, impressed with the old red Government inland stamp, the duty ranging from 1d. to 5d., as they only paid a penny an ounce for postage, freely took the place of letters. At all events, 172,609 newspapers went out to Australia, and 171,055 came home.

One can picture the consternation of the Circulation Office in St. Martin's-le-Grand if on a Friday in 1894 there were for Western and South Australia, for Victoria, Tasmania, and New South Wales, no more than the sum total of the letters which were sent to Australia in 1844. The mail for Sydney would consist of 1,332 letters, that for Port Phillip of a couple of hundred; for Hobart, twice as many (the penal settlement, while it lasted, no doubt giving rise to a good deal of correspondence) would be sent; for Perth, a handful or two, and for Adelaide and New Zealand eight or nine score apiece.

The weekly mail for Australia now contains not fewer than 50 or 60 thousand letters, and 150 thousand other postal packets; so vigorously have

social and commercial relations grown with the antipodes in fifty years.

Sailing packets for the mail-service, therefore, because of slowness and higher postage, soon went out of favour, the postal contract lapsed, and the public fell back on private ships, and paid only the ship-letter rate on their correspondence.

Such was the state of things even when the fifties were reached. The colonists had hailed with joy Waghorn's proposal to quicken the communication by steam by way of the Red Sea and an Indian port; they now roused themselves to action.

The Legislative Council of New South Wales had long shown the metal they were made of. An active Colonial Secretary led them on. They inquired, reported, and memorialized; they threw themselves by petition at the foot of the throne; they craved for steam communication, and that by way of the Indian Seas. Weary of waiting five months for their post from England by the Cape of Good Hope, they thirsted for letters in half the time by way of Singapore. It is strange that so little could be done to help them.

The powerful young statesman at the Colonial Office in 1846, the Right Honourable William Ewart Gladstone, M.P., however sympathetically he listened, did not see his way to a compliance with the colonial wish. How was that eternal want of pence, which so sorely hinders great enterprises, to be met? The colonists asked for steam. The sea-postage, said they,

produced £14,700 a year; they would add £6,000 to it themselves. Surely, for somewhat less than £21,000 steam could be forthcoming.

Steam! Why, a mere sailing schooner plying once a month out of the overland mail at Point de Galle or Singapore would cost £14,400 a year! What, then, it was urged, would be the enormous outlay on a sufficient line of steam vessels? Of course it would be very great; but the colonists, though expressing 'disappointment and mortification,' did not relax their appeals.

Western Australia strove to move the official heart by a proud humility. They wished to send their English mails to Batavia, and pass them to and from that port by the Dutch mail-steamer which plied to Singapore. But while sails would take a schooner swiftly up to Angiers Point, in the island of Java, steam alone could bring it quickly back with the return mails to Perth; so that any old disused steam-tub would be better than a sailing vessel.

'Your lordship,' wrote Governor Fitzgerald to Earl Grey, 'will, I trust, observe . . . the incalculable advantage this colony would derive did the Lords of the Admiralty furnish us, as they have done the colonies on the West Coast of Africa, with some half-worn-out steamer of the old model, not deemed fit to sustain the flying rapidity of European communication, yet, my lord, possessing a certainty and rapidity, as compared to our present movements here,

that would be deemed almost miraculous.' Surely this would persuade the officials in Downing Street and Whitehall!

But Governor Fitzgerald had no better luck with Earl Grey than had the Speaker of the Legislative Council of New South Wales with Mr. Gladstone. The cost of the schooner to Java was only a little over a thousand pounds a year; that of a vessel with auxiliary steam power would be from four to five thousand pounds for coals alone. So there was an end of Governor Fitzgerald's aspirations.

The colonies, however, renewed their appeals with vigour and persistence. Nor was New Zealand silent, though its Legislative Council was inactive. The venerable Sir George Grey—who is returning to England as I pen these lines, and was then colonial Governor—sent home within twelve months, in 1849, three forcible despatches. Earl Grey, at the Colonial Office, had little peace. At last, in 1851, Parliament took notice of the matter; and there was a full inquiry.

Still, it could not be denied that the colonists chiefly concerned were relatively few in numbers, though great in spirit and commercial enterprise. There were at that date not more than 350,000 British subjects in the whole Australasian group. The population of Sydney, all told, was 200,000—not, perhaps, all British subjects, and, in any case, leaving but a handful of Englishmen to be scattered over the Australian continent, and the colonies of

Tasmania and New Zealand. At the present time the population of Australasia exceeds four millions. Yet, small or great, the several communities were at one in desiring steam postal communication, and that with India, or a port in the North-West, so that a mail-line might join them up with Waghorn's overland route for home through Egypt.

When it came to the choice of routes to the northward, agreement seemed impossible. The reason was obvious, and found its parallel when, some years later, the Post-Office rearranged the letter delivery of London. The process as a whole was quickened. But where, in achieving that object, the route of the postman in certain streets was necessarily reversed, those who formerly received their letters first and under the change got them last, did not like it.

So in Australia. To send the mails by Torres Straits to Singapore meant despatch from Sydney last, and from Melbourne and the other ports first; in the reverse direction, delivery at Sydney first, at the other places last. To set a line by the route now followed would be to favour Albany, Adelaide, and Melbourne, and put Sydney at a disadvantage. In either event there was to be looked for a storm.

As a matter of fact, in after-years, when Victoria had made a packet contract of its own for a branch service to Ceylon, one of the conditions limited the voyage southwards to Melbourne only. Sydney then sent its mails across the Pacific to San Francisco.

Queensland to this day maintains its own mail-service by the British Indian Company's line *viâ* Torres Straits.

New Zealand provides a steam line from its shores to Plymouth direct, besides branch lines to Australia proper and sometimes to San Francisco.

But to resume. New South Wales supplied India with good horses. A 'Waler' is a household word amongst Anglo-Indian riders. The trade began as early as 1841, when 35 horses were exported. It grew so quickly that in 1845 as many as 1,156 were sent up. A 'Waler' carried Sir James Outram through the embrasure at Lucknow. Naturally, New South Wales wished to cultivate closer relations with India, expand her trade, and mount the entire cavalry divisions of the Anglo-Indian army. That was a worthy object. A quick post with home was, perhaps, an object more worthy still.

The excusable impatience, or, as one would prefer to say, the reasonable desire, of the colonists was met by what seemed to be a want of earnestness at home. It was not really so. The cost of an effective scheme of steam communication was not the only difficulty. The question was complicated, and included both a choice of route and a choice of means. If a line of steamers landed Australian passengers at Singapore, the branch ship might have filled up at Hong Kong; or if at Ceylon, then, more probably still, passengers from Calcutta, Madras, and Ceylon itself would leave no room in the homeward steamer for the Australians.

There might at least be from this cause discomfort on the voyage.

As to means, were there not many competitors already in the field; some waiting for the chance to extend their services, some to originate new ones? On whom should the choice rest? Who, in any case, was to pay the piper?

New South Wales was all for a route by Torres Straits, and heeded little the danger of the Coral Sea. Its channels could be lighted and rendered safe. But Torres Straits did not catch the fancy of the British Legislature. The Sea of Arafura had not then been surveyed. Coral abounded in sunken patches, especially in 11 degrees 36 minutes of south latitude. A beacon had not been established on Raine's Island, 70 miles from the mainland.

Parliament, too, attached much importance to the comfort of passengers. It naturally thought even more of that than of the swiftness of the mails, and considered that, on the whole, the easier, if the slower, passage was by way of the Cape. It was not daunted by the fact that when the mail-packets did reach the Cape after 32 days' steaming from England, they would still have before them 38 days' transit over almost shipless waters before land could again be made.

While there might be comfort in avoiding the transhipments and breaks of the journey by way of Suez, a voyage to Australia by the Cape would not be always a smooth one. With the force of wind 5—that is, a fresh breeze—Captain Owen Stanley, in

H.M.S. *Rattlesnake*, in April, 1847, determined the velocity of the sea east of the Cape at 27 miles an hour, the height of the waves at 22 feet, and their length 55 fathoms, or 330 feet.

Notwithstanding the prospect of stormy seas, the voluminous statements of the Australian colonies, and their urgent appeals in favour of the North Indian Ocean as a water-way, the Committee of 1851 formally pronounced in favour of the long sea route by the south. Steam, it is true, was to be called in aid.

But steam, whether as auxiliary to sails or independent of them, by 13,000 miles of open sea could not long hold its own against the overland route. The Admiralty had had before them no fewer than twenty-three distinct tenders, some for performing the voyage by paddle vessels, some by screws, some for taking the mails by way of the Cape, one or two by the route of Panama, others through Singapore, and all by steam.

The colonial mind was not to be balked of steam to an Asiatic port, whether the open waters of the Indian Ocean, and the route of Mauritius, Reunion, or Ceylon, or Torres Straits and Singapore, were to be the channel. Steam to the north was the rallying cry! Scarcely was the ink dry of Lord Jocelyn's report of 1851, when the Peninsular and Oriental Steam Navigation Company threw out a branch in alternate months from Singapore to Matama and the Australian ports *via* King George's Sound. That in principle settled the matter.

The branch from Singapore, however, endured only for a season. The Crimean War broke out, and the Government required for transport duty all the large and swift merchant-steamers which could be procured. The Australian service was suspended, and was never resumed on the same basis. The Post-Office had to fall back on the track by the Cape.

Then came to the front the splendid steamers and clipper ships with auxiliary steam-power, by which Liverpool carried on the Australian trade. The names of the vessels of Messrs. James Baines and Co., Gibbs, Bright and Co., and others, became household words. The *James Baines*, named after its owner, was, I believe, the first to take the mails from Liverpool. She sailed on December 10, 1854. Then the *Royal Charter*, the *Red Jacket*, the *Lightning*, the *Golden Age* (which accomplished the passage in 47 days), the *Champion of the Seas*, and other ships, made their mark. I think the subsidy was £1,000 for the round voyage, but I am not sure.

The tragic end of the *Royal Charter* still stirs the memory. That famous vessel was an auxiliary screw-steamer of 2,756 tons register, and had, on a voyage in 1856 from Melbourne, while carrying the mails, brought home the largest number of letters then ever received by the Post-Office from one ship, and the enormous sum of £734,000 in gold. On October 26, 1859, on her homeward voyage, with a valuable cargo on board and gold to the amount of £400,000, she went ashore in a storm off Moelfra Head, on the east

coast of Anglesey, within a few hours of port. Nearly 500 lives were lost.

This was the period of the great gold discoveries. An idea of the wealth which suddenly poured into the country may be gathered from the fact that on one occasion, in November, 1856, three ships arrived within twenty-four hours at Liverpool, bringing, chiefly from Australia, bullion of no less value than a million and a half sterling.

During the period of interruption of the regular service, the well-remembered vessel, *Great Britain*, took part in carrying the Australian mails. She was by far the largest steamship then afloat, being of 3,500 tons burthen and 1,000 horse-power; so large and so powerful that she was regarded as not only 'noble,' but 'stupendous.' On her maiden trip in 1845, she took only 15 days to go out to New York, and 16 to come home, such in those days being regarded as quick passages.

In 1846, I recollect, she went ashore in Dundrum Bay, on the north-eastern coast of Ireland, and lay there a whole year with holes in her sides through which, an eye-witness said, a man with a wheelbarrow could freely pass. Such, however, was the strength of her hull that, when patched up and floated, she was found to have sustained no material damage. In 1852 she took 600 passengers to Melbourne.


But with the restoration of peace in October, 1856, the long-sea contract terminated, and the overland route again came into requisition. The Government,

probably with the view of encouraging competition for the Eastern service, contracted with a new steam packet company for an independent line from England to Australia by steamboats plying from Southampton to Alexandria, and from Alexandria, *vid* Mauritius, to the Australian ports. But the venture was premature. The company lost, it is said, close on three-quarters of a million of money in making it; they collapsed and withdrew.

The P. and O. Company again became contractors for carrying the Australian mails, and although the packets of the French and Germans soon entered Australian waters, and although eventually another great English corporation—the Orient Steam Navigation Company—began to send its vessels to Australia, the older company had established itself too firmly to fear competition.

The complicated history of the Australian mail-service from that date may be epitomized by the statement that the Peninsular and Oriental Company have carried the mails wholly or in part ever since. For a brief period the route of Mauritius and the Seychelles was followed, but in 1861 Point de Galle made the point of departure and arrival of a monthly mail-packet.

There had, indeed, been a time when the fortunes of Mauritius seemed to be in the ascendant in a special and particular degree; that is when, in the early fifties, a project was afoot for making it a rendezvous for packets traversing the South Indian



seas. Its time even yet may come, especially when Western Australia rises to opulence, and trade relations between Australia and the Cape of Good Hope and India ripen still further. Port Louis is almost equidistant from many of the great channels of trade in Indian, African and Australian waters, *e.g.*, the Straits of Bab-el-Mandeb and Malacca, the Hooghly, Port Jackson, and Table Bay. But this fine scheme never came to pass. As it is, Mauritius subsidizes a local line of steamers to Ceylon, and makes use of a French mail-steamer for mails to Marseilles.

A monthly steam service to and from Ceylon, which years before had seemed to be the goal of Australian aspirations, no longer contented the prosperous colonists. They pressed onwards to better things. They helped to bring about a Select Committee in 1866, for by that time they could speak with weight. British goods and produce sent to Australia in 1865 were valued at ten millions and a quarter sterling; the produce which came back, exclusive of precious metals, at thirteen millions and a half. Twenty-four million pounds' worth of British trade was not below a statesman's notice. The monthly mail now cost £120,000 a year. No longer did references to the expense of a sailing schooner or the overwhelming cost of steam encumber despatches. Improvement advanced as though by the leaps and bounds of the kangaroo. Colombo replaced Point de Galle.

In 1880 the mails were exchanged with twofold frequency—*i.e.*, fortnightly—and in 1887 was estab-

lished the present magnificent service from the Thames and Brindisi by vessels which, passing through the Canal, make the passage to Adelaide direct. The P. and O. and the Orient Company's steamers sail from London alternately, and together maintain a weekly communication with Australia, for a subsidy of £170,000 a year, divided equally between the two companies.

By either of these lines the passenger from the Thames for Australia knows no change of quarters until he sets foot on the great continent which lies under the Southern Cross.

The Orient Line, which afterwards became the property of the Orient Company, was started in June, 1877, by Messrs. Anderson, Anderson and Co. with chartered steamers. On the strength of experience gained, the company was formed by the joint exertions of that firm and Messrs. F. Green and Co., who became associated with them for the purpose.

The first ship (the *Garonne*) was despatched in March, 1878. For four years the company only received for their postal services the meagre remuneration, under the Ship Letter Act, of 1d. per letter. About 1883 they contracted with the Governments of New South Wales and South Australia on the basis of payment according to the weight of mails carried. At length, in 1887, both companies, as stated, agreed with the Imperial Government to establish the weekly mail-service.

A singular and costly incident occurred early in

the Orient Company's career. A brand-new vessel of 5,524 tons sank at her moorings in deep water in Sydney Harbour. On arrival, her cargo had of course been removed, and her stock of coals being largely burnt out, the ship floated high in the water. Advantage was taken of this fact, before re-coaling or shipping new cargo, to open for ventilation, drainage, or cleansing purposes certain low-lying valves.

Unluckily they were left open. When coaling commenced the valves sank below the water-line, and it may be that the wind, as in the case of the *Royal George*, gave the vessel a cant to one side or the other. At all events, it began to fill, and before the cause could be conjectured and the inflow of water stopped, down went this splendid packet clean out of sight beneath the deep blue sea.

There, I know not how many fathoms deep, she lay for months, while skilled divers and powerful pumps were being procured from England. Then came an exciting time. The divers planked and stopped every aperture, and formed (my belief is) a kind of coffer-dam of the ship's sides.

The steam-pumps were fixed on a raft close by, and the signal to pump was given. Before long, torrents of coal-black water poured from the nozzles. Soon there were signs that the hull was vibrating. Hopes rose; so at length did the masts. Now success was assured. Above sea-level appeared the funnels, the deck-houses, the very bulwarks.

Next, they moved the ship. A tug was made fast

to stem or stern, and very slowly the vessel, still submerged, was towed at high-water on to a gridiron. When the tide ebbed all the water ran out of her, and the good ship was found to be as sound as ever. When the tide flowed she floated. They lighted a furnace or two, turned a few pounds of steam into the cylinders, and little was found the worse for so long a bath.

It took some time to dry the ship and refit her; but as far as the conveyance of the mails and the safety of the vessel went, her head might as well that moment have been turned homewards, and she would have cleared out of Port Jackson in her old fine style. But neglect of those sub-aqueous valves cost the under-writers, or the company, or both, a large sum of money.

From Cannon Street, London, to the *Semaphore* anchorage at Adelaide, *viâ* Naples, is a journey, as measured by time and the contract, of 34 days 5 hours and 37 minutes; *viâ* Brindisi it is nominally ten hours longer. The penalty for delay is £100 a day.

The splendid steamers which the two companies provide, however, are not to be held back by mere contract stipulations, but, like the 'steed unbroken when first it feels the rein,' traverse their course at a pace none may overtake. In this way, the same *Himalaya* which, as has been seen, had proved her mettle on the Bombay line, won laurels on a voyage to Australia. On May 19, 1893, her mails left

London at 8.23 p.m. She delivered them at Adelaide on June 15 at 2.54 a.m.—that is in 26 days 6½ hours.

Place to the 'Orient' Line! The *Ophir* left Adelaide on November 2, 1892, at 1 o'clock p.m., and her mails got to Cannon Street on the 29th at 5.15 p.m.—that is in 27 days 4½ hours.

Half a century ago what did we see? A passage of 118 days, a course of post of 8½ months. Now the passage is made within 30 or 35 days, and the course of post with Australia, and its ocean trade of a hundred millions sterling, may be put down as 2½ months. So in 40 years we have at any rate gained 6 months on the round voyage in the transit of passengers and in the exchange of commodities with that delightful land which, British to its core, was rightly named, by its earliest explorer, *Australia Felix*.

CHAPTER XXV.


JUBILATION.

THE Post-Office, inexhaustible at the desk or on the field of duty, has not always been disposed towards collective festivity.

The cause may not be very far to seek. Having given to the service of the commonwealth the best of the day, its members not unreasonably fly away to their homes to make the best of the night.

So it fell out that the several branches of the Post-Office pursued for many a long year the even tenor of their way, without so much as a thought of jubilation in respect to official toil. The chief clerks had other things to think of; the juniors neither the cash nor the power. However, a change was at hand.

The cheers of the million which had saluted the jubilee of her Majesty Queen Victoria were yet in the ears of the people, when the Post-Office became aware that the fiftieth year of penny postage verged on completion. It resolved to celebrate the occasion, and lost no time in appointing a committee and making preparations. The first step was to roll



together in the office itself a large guarantee fund. Next, before buckling on the harness of festive organization in earnest, 250 of its principal people struck out the novel design of dining together. That dinner has its memorable recollections. It took place as near to the semi-centenary of penny postage as could be arranged. Amongst the guests there was one who already filled high office when the penny became the Shibboleth of progress—Sir John Tilley, K.C.B.; near him sat the son of the Reformer, and over against him a nephew of Sir Rowland, who has done more for the Office than the public are aware of—Mr. Edward Bernard Lewin Hill.

This first act of jubilation has, too, its sorrowful associations. The guests of the past look in vain for the genial chairman of the night, the Right Honourable Henry Cecil Raikes, Member of Parliament, the political Chief of the Office, and for their vice-chairman, Sir Stevenson Arthur Blackwood, K.C.B., the lamented secretary.

But at that moment all the chords which were struck gave out the note of rejoicing.

Pitched in a key in close sympathy with the sentiments of his followers was the chairman's harangue:

‘I think these’ (the facts which he stated) ‘will justify me in saying that it is probably to that happy thought, that patient research, that heroic persistency of Rowland Hill, that this department has become the most important administrative department of the State.’

‘Talk of armies,’ continued Mr. Raikes in a jubilant strain of good-humoured banter, ‘why, the numbers of officers I have just mentioned to you are more numerous than any regular forces which the Secretary for War can show within the compass of her Majesty’s dominions. The fleets over which the Postmaster-General exercises control are faster, better found, and more efficient, than any which obey the bidding of the First Lord of the Admiralty. Talk of the Foreign Office—or the Colonial Office—why, half of the work of those departments is what we make for them, and in which we have to assist them. I believe, in fact, that the growth from this grain of mustard-seed, this little penny post which was invented by the Worcestershire schoolmaster, has been such that we are approaching a period, if we have not reached it, when the Post-Office will be regarded with eyes of envy and suspicion by every other department in the State.

‘We are always told that we ought to be making a new departure. We are always making new departures. If the public only knew the secrets of the Post-Office, they would find that there is no department on the face of the earth which is so prone to ventilate and push new ideas.

‘A Treasury minute penned on the occasion of Sir Rowland Hill’s retirement from the office he had so long adorned, salutes him, not merely as a faithful servant, but as a benefactor of the human race.

‘It is with that great example before us that every man in this service does his daily work. As long as that example is cherished and honoured as it is to-day, there need be no fear for this great department, which goes step by step and stride by stride in advancing the welfare of mankind.’

Mr. Raikes concluded by describing the Post-Office as one of the first civilizing agencies of the century, and as embodying, year after year, one after another, those peaceful revolutions which make up the happy history of man.

What was the cause of jubilation? The main intention was to do honour to the memory of Sir Rowland Hill, to impress yet once more on men’s minds the magnitude and beneficence of his work and the vast extension of usefulness which had accrued to the department, thanks to the seed sown by the famous pamphlet on Post-Office reform and the fructifying genius of its author.

The department had become a greater carrying agency than ever. Cheap letters, cheap book-packets, samples and patterns, trade circulars, newspapers, manuscripts for the press, postcards, registration, had sprung into life and flourished in the jubilee period.

It had become a banker, and had received the enormous sum of 304 millions of pounds sterling as deposits, all in small sums, saved by the thrift of the nation. It transmitted millions of money by money order and postal draft.

The Post-Office was a telegraphist on the largest known scale, and the paymaster of military pensions. It even insured the lives of its clients. It had cheapened postage to the colonies and foreign parts, established a parcel post, fostered the springs of commerce, and sweetened home life.

Its revenue had risen from two and a half millions to twelve millions per annum; its profits from little better than a million and a half to nearly three millions of pounds.

It had so thoroughly won its way to the heart of the nation by promptness, efficiency, and zeal that even so unimpressionable a being (in his official capacity) as the Chancellor of the Exchequer was moved to admiration. Shortly before the resignation of Lord Salisbury's Administration the Chancellor of the Exchequer (Mr. Goschen) spoke in generous and encouraging terms of the Post-Office. He said, amidst the cheers of the House of Commons, that 'so far as he could exercise any influence over the Post-Office, he should encourage them to improve their service. He should be sorry to take a churlish view of the splendid efforts of one of the most successful departments that ever existed—a department full of energy, which deserved the great thanks of the country for the magnificent manner in which it had conducted a most complicated service.'

These were noble and stimulating words, and not likely to be forgotten. They acknowledged the results of fifty years of sustained effort to work out Sir Row-

land's schemes and keep the department abreast of the requirements of the age.

There was a further and not less worthy object in view—the strengthening of the hands of the trustees of a beneficent investment known as the Rowland Hill Benevolent Fund.

On May 16, 1890, came a magnificent demonstration at Guildhall. The Corporation of the City of London had bent their shoulders to the work of jubilation. They appointed a committee of reference; they invited a committee of co-operation formed of postal officials.

The Guildhall was a sight to behold. The like of it had never before been seen. One end of the noble hall was crowded with telegraph apparatus, the other with the work of a post-office. Three thousand guests were invited. The Prince of Wales moved amongst the throng.

Had the occasion been honoured by the company of Her Royal Highness the Princess of Wales, there might have been arranged, with the concurrence of the royal couple, a curious telegraphic feat. For in the Guildhall were fixed two Hughes' type-printing telegraphs, one working direct to Berlin, the other to Paris. Had the Prince stationed himself at one instrument and the Princess herself at the other, they would have been perhaps two lineal yards apart.

Now, the feat would have been to send a despatch from the Prince to the Princess, who, telegraphically, would have been seventeen hundred miles apart.

The message would have had to be signalled to Berlin by the route of Bishopsgate, Mile End, and Lowestoft, the North Sea and North Germany. At Berlin it would have been repeated—flashed across the Rhine to Paris. From Paris the signals would have passed through Normandy, across the Channel from Dieppe, through England by Tonbridge, across South London and the Thames, and through the General Post-Office to the Guildhall.

The interest would have lain in the brevity of the interval between the last 'click' of the signals to Berlin by the North Sea and the first click of the twice-repeated message turning up from Paris across the British Channel. How long would the interval have been? Perhaps fifty seconds!

In front of the Guildhall, at the close of the day preceding the Jubilee conversazione, shortly before eight o'clock, stood a coach labelled 'London and Edinburgh.' It was about to go back to the stable-yard after rehearsing some duties appointed for the next day. It was still broad daylight; the evening was genial. An immense crowd had assembled outside the Guildhall in expectation of something unusual occurring. The thought struck me that it would be a pity to disappoint them. So the coachman and guard were told that the start was to be deferred until the first stroke of eight from the church clock hard by.

The word was soon passed about the crowd that the

coach would be off with Post-Office punctuality exactly at that time, not a second sooner or later. We began to load up with dummy mail-bags, the process being watched with deep interest. Then eight or ten of our colleagues ascended as passengers; some, by good luck, had hand-bags with them; one rejoiced us by producing a portmanteau.

At length every place was taken. It seemed that there was even a lady inside the coach—at all events, someone with a bonnet. Eight o'clock impended. The crowd thickened. Excited expectation increased. The horses champed their bits, pawing the ground. The clock now was within a minute of eight. The coachman tightened his reins. The guard grasped his far-sounding horn. The clock struck the first stroke of eight.

Then came the grand *finale*. At the sound of the clock, from the post-office inside the Guildhall rushed a postman carrying a mail-bag. 'Last bag out!' he loudly cried, and hurled it, in view of the somewhat awed, but wholly absorbed, mass of onlookers, to the top of the coach. The guard blew his horn, the leading bays reared up, the wheelers settled to the collar, the enchanted crowd cheered, and with a flick of the whip the skilful charioteer on the box started his four-in-hand with the 'down night mail.'

Said a bystander in my hearing, at the corner of the Guildhall Yard: 'I should not like to be one of the fellows on that coach.' 'Why not?' inquired his friend. 'Don't you see?' was the rejoinder; 'they

are going all the way to Edinburgh, and they have not got a great-coat amongst them !'

The exhibition was thrown open on two days following the *conversazione*, when 21,000 persons visited the Guildhall.

The Committee of Reference at its close brought up to the Common Council a jubilant communication :

' We have received on all hands the most gratifying testimony of the success of the proceedings undertaken by us, on the reference from your honourable Court.

' We have audited the various bills and accounts, which we have the satisfaction to report amount in the total to £1,675 4s. . . .

' We have specially recorded our thanks to the Postmaster-General.'

The Common Council received the tidings with approval, and signified the same in a stately fashion :

' The Penny Postage Jubilee Committee did this day deliver into this Court a report in writing, under their hands, of their proceedings ; and a motion being made and question put, That this Court doth agree with the committee in their said report, the same was resolved in the affirmative and ordered accordingly.'

The Corporation of the City of London from 1837 to the present day has consistently been the good friend of the Post-Office. It backed up penny postage with the same vigour that it showed in doing honour to its author and in celebrating the Postage Jubilee.

One feature of the *conversazione* was the Guildhall post-card, struck for the occasion, the plate being

afterwards destroyed with much formality and many blows. This penny post-card brought into the fund referred to more than £200.

The crowning event was to come. Lord Cranbrook and Sir William Hart Dyke, M.P., as Lords of the Committee of Privy Council for Education, lent the use of the extensive Museum of Art treasures at South Kensington, and on July 2 the Post-Office gave its own *conversazione*. About four thousand persons were present. Their Royal Highnesses the Duke and Duchess of Edinburgh were graciously pleased to accept an invitation to preside; they admired the arrangements, and inspired their guests with the pleasure which is occasioned by natural and spontaneous politeness.

Wonders were spread before their eyes: some in sober earnest, some as calculated to contribute to the entertainment of the evening. Mr. Sims Reeves came forth from his retirement and sang airs which were applauded to the echo. A staff of well-known ladies and gentlemen took charge respectively of a post-office reputed to be a hundred years earlier than our time, and of another of a hundred years hence. A royal procession preceded by heralds paraded the building.

Improvised post-offices dealt with letters by the thousand. A telegraph-office in the midst brought congratulations from all parts of the world—from the Isles of Shetland, from India, Australia, New Zealand, the Cape, and the Dominion of Canada. All were


tuned to one key ; all were in harmony with the spirit of the night.

If within the scene was brilliant, without exciting spectacles delighted the crowd. The Brighton mail parcel-coach dashed away with four prancing steeds, so also did the mail-coaches for Watford and Oxford. Guards of honour presented arms, the bands played the National Anthem.

There was yet to come the special feature of the occasion. At 10 o'clock Her Royal and Imperial Highness touched the key of a telegraph arranged by the electrician, Mr. Preece, and the United Kingdom of Great Britain and Ireland broke into a cheer.

Officials off duty at distant towns spontaneously returned to their post offices, and as the signal arrived cheered with their fellows. At Grantham 6,000 people awaited its arrival in the ancient market-place, and at Bradford 6,000 more did the same. At Collinstown, in Westmeath, the sub-postmaster, 'all unaided,' gave three cheers, his wife 'being unable to sit up later than 8.30.'

At Letterfrack, in County Galway, the Queen's official reported that, 'Myself and sister being in charge of this post-office in the far west of Ireland, she as assistant, myself as sub-postmistress, felt very great pleasure in assembling in the office at 10 p.m. and with our old postman in uniting in giving three cheers in right hearty old style for our beloved Queen, and in wishing health, long life and prosperity to her Majesty.'



And from fair Scotland? From the North as from the South, from the East and from the West, came the cheering—from bonnie Dundee was telegraphed the following :

‘ Her servants pray, God save the Queen !
With one united heart,
From banks of Tay and Forth and Clyde,
Spey, Ness, Dee, Ayr, and Cart.’

Nor did the Outer Hebrides forget to give *slainte Bauright*, and telegraph to let the London people know that cheers were resounding (as they were careful to add) ‘ amongst the dim shielings on the misty Islands.’

Amid the greater and more striking demonstrations, shall the tribute of the solitary watcher at Vigo Street Post-Office, awaiting the signal at her desk, be forgotten ?

The Office bent itself to the work of enlarging the Rowland Hill Benevolent Fund. It designed a special envelope, which sold for £11,166. The Baroness Burdett-Coutts, Sir James Whitehead, Bart., M.P. (a tried friend of the Post-Office), and Mr. Lidderdale, Governor of the Bank of England, joined in an appeal to the public which brought in £12,000 more. In the result, after defraying every expense, we were able to transfer to the fund the sum of £22,056.

Lastly, Mr. G. A. Aitken, fresh from the ‘ Lives of Steele and Arbuthnot,’ compiled a Jubilee Book. Her Majesty, who had graciously become the patron of the Benevolent Fund, accepted a copy.

We sent the volume to all the principal English-speaking colonies and dependencies, and to the Postmaster-General of the United States, from whom, as from others, came letters conveying most cordial sentiments.

The Jubilation of 1890 came to an end. Then the Book of Life turned another page. In 1891 passed away Mr. Henry Cecil Raikes; in 1893 Sir Arthur Blackwood, and in the same year illness constrained the writer of these pages to bid farewell to the Post-Office.



APPENDICES

APPENDIX	PAGE
A. LIST OF COACHES WHICH PASSED THROUGH BARNET	
<i>circa</i> 1829 - - - - -	297
B. NEWCASTLE-ON-TYNE COACHES IN 1836 - -	300
C. DEVONPORT COACHES IN 1832 - - -	303
D. EXETER COACHES IN 1840 - - -	304
E. COMPARISON OF MAIL-COACH TIMINGS AT THE ACCESSION OF KING WILLIAM IV. AND OF HER MAJESTY QUEEN VICTORIA - - -	305
F. LIST OF DAY COACHES FROM LONDON IN 1836 -	314
G. SPECIMENS OF PARCEL MAIL-COACH TIME-BILLS OF THE PRESENT DAY - - - - -	317
H. TIME-BILLS OF THE LONDON, GLASGOW, AND ABERDEEN SPECIAL NIGHT MAIL TRAINS - -	319
I. RESPECTING THE <i>Himalaya</i> AND <i>Campania</i> -	326
J. LIVERPOOL AND PENNY POSTAGE (1894) -	326
K. RESPECTING COAST COMMUNICATION - -	327
L. ERRATA - - - - -	328



APPENDIX A.

A LIST OF COACHES TO AND FROM LONDON WHICH PASSED THROUGH BARNET ON THE GREAT NORTH ROAD WHEN HIS MAJESTY KING WILLIAM IV. WAS ON THE THRONE.

Coaches to and from towns marked thus § followed the Hatfield and York road north of Barnet; the rest took Telford's Birmingham mail-road.

* * Although no date can with certainty be assigned to this table, which was compiled—but in a slightly different form—by the late Mr. J. J. Cowing, proprietor of the Public Library at Barnet, it probably belongs to the year 1829. The coaches passed under Mr. Cowing's windows. The up Glasgow mail is timed at 8.45 p.m., but this is perhaps an error. In 1832 the coach was due at 5.30 a.m.

Destination.	Name of Coach.	London Inns.	Time due at Barnet by Local Clock.	
			Down.	Up.
Barnet	Royal Union	Cross Keys, St. John Street, and Royal Exchange	6.0 p.m.	8.15 a.m.
Ditto	Tally Ho !	Cross Keys, St. John Street	11.15 a.m.	6.0 p.m.
Ditto	Times	Blue Posts, Tottenham Court Road	5.40 p.m.	8.40 a.m.
§Bedford	Royal Pilot (Tues., Th., Sat., Mon., Wed., Fri.)	Three Cups, Aldersgate Street	2.30 p.m.	11.45 a.m.
Ditto	Times	George and Blue Boar, Holborn	4.30 p.m.	12.15 p.m.
Ditto	Umpire (Mon., Wed., Fri., Sun., Tues., Th.)	Boar and Castle, Oxford Street	3.30 p.m.	2.0 p.m.
Birmingham (via Coventry)	Albion	Bull and Mouth	7.45 p.m.	7.45 a.m.
Ditto	Emerald	Golden Cross, Charing Cross	8.40 p.m.	7.0 a.m.
Ditto	Greyhound	Swan with Two Necks, Lad Lane, and Castle and Falcon	8.15 p.m.	6.30 a.m.
Ditto	Independent Tally Ho !	Golden Cross, Charing Cross	8.15 a.m.	6.0 p.m.

Destination.	Name of Coach.	London Inns.	Time due at Barnet by Local Clock.	
			Down.	Up.
Birmingham	Tally Ho !	Saracen's Head,	7.45 a.m.	5.30 p.m.
via Coventry)		Snow Hill		
Ditto	Union Balloon	Swan with Two	6.15 p.m.	7.30 a.m.
		Necks, Lad Lane		
Ditto (via	Crown Prince	Belle Sauvage,	8.15 a.m.	7.5 p.m.
Warwick)		Ludgate Hill		
§ Boston	Perseverance	King's Arms, Snow	8.40 p.m.	8.0 p.m.
		Hill		
Chester	Royal Mail	Golden Cross,	9.15 p.m.	5.30 a.m.
		Charing Cross		
Daventry	Accommodation	Three Cups, Al-	8.15 a.m.	3.45 p.m.
	(Mon., Wed.,	dersgate Street		
	Fri., Tues.,			
	Th., Sat.)			
§ Glasgow	Royal Mail	Bull and Mouth	9.15 p.m.	8.45 p.m.
Ditto (via	Royal Bruce	Swan with Two	5.0 p.m.	8.0 a.m.
Manchester)		Necks, Lad Lane		
Hatfield	Royal Sovereign	Boar and Castle,	5.30 p.m.	8.10 a.m.
		Oxford Street		
Hitchin	Times (Mon.,	White Bear, Picca-	4.30 p.m.	8.45 a.m.
	Wed., Fri.,	dilly, and Three		11.10 a.m.
	Tues., Th.,	Cups		
	Sat.)			
Holyhead (via	Royal Mail	Swan with Two	9.15 p.m.	5.30 a.m.
Shrewsbury)		Necks, Lad Lane		
Kettering (via	Uppingham	George and Blue	9.30 a.m.	4.30 p.m.
Bedford)	(Mon., Wed.,	Boar, Holborn	8.45 a.m.	6.30 p.m.
	Fri., Tues.,			
	Th., Sat.)			
Leeds	Courier	Belle Sauvage,	4.0 p.m.	3.0 p.m.
		Ludgate Hill		
Ditto	Rockingham	Saracen's Head,	3.15 p.m.	9.15 a.m.
		Snow Hill		
Ditto (via	Royal Express	Bull and Mouth	5.15 p.m.	9.45 a.m.
Nottingham)				
Leeds	Royal Mail	Bull and Mouth	9.15 p.m.	8.30 p.m.
Ditto	Royal Union	George and Blue	10.0 a.m.	1.0 p.m.
		Boar and Three		
		Cups		
Leicester	Union	Bull and Mouth	8.50 a.m.	6.45 p.m.
		and Bull Inn,		
		Aldgate		
Leighton	Accommodation	Cross Keys, St.	3.15 p.m.	10.30 a.m.
Buzzard		John Street		
Luton	—	Three Cups, Al-	5.0 p.m.	8.45 a.m.
		dersgate Street		
Liverpool	Alliance	Swan with Two	3.15 p.m.	10.0 a.m.
		Necks, Lad Lane		

Destination.	Name of Coach.	London Inns.	Time due at Barnet by Local Clock.	
			Down.	Up.
Liverpool	Royal Express	Saracen's Head, Snow Hill	5.15 p.m.	5.30 p.m.
Ditto	Royal Mail	Swan with Two Necks, Lad Lane	9.15 p.m.	8.45 p.m.
Ditto	Sovereign	Three Cups, Al- dersgate Street	9.30 a.m.	1.50 p.m.
Ditto	Umpire	Golden Cross, Charing Cross	3.30 p.m.	3.45 p.m.
Manchester	Defiance	Swan with Two Necks, Lad Lane	7.20 p.m.	4.40 p.m.
Ditto	Herald	Spread Eagle, Gracechurch Street	6.45 p.m.	5.10 p.m.
Ditto	Independent	Bull Inn, Aldgate	6.45 p.m.	4.30 p.m.
Ditto	Peveril of the Peak	Blossom's Inn, Laurence Lane	10.15 p.m.	10.30 a.m.
Ditto (and Glasgow)	Royal Bruce	Swan with Two Necks, Lad Lane	5.0 p.m.	8.0 a.m.
Ditto	Royal Mail	Ditto	9.15 p.m.	5.30 a.m.
Ditto	Telegraph	White Horse, Fetter Lane	6.30 p.m.	2.45 p.m.
Ditto (through Bedford)	Times	Golden Cross, Charing Cross	9.0 p.m.	11.0 a.m.
Northampton	Post Coach	Bull and Mouth	1.50 p.m.	1.30 p.m.
Nottingham (via Leices- ter)	Times	Swan with Two Necks Lad Lane	7.20 a.m.	8.0 p.m.
§Oundle and Kimbolton	Improved Safety (Tues., Th., Sat., Mon., Wed., Fri.)	George and Blue Boar, Holborn	8.45 a.m.	2.50 p.m.
St. Albans	Favourite	Windmill, St. John Street	6.30 p.m.	8.10 a.m.
Sheffield and Nottingham	Royal Hope	Angel Inn, Angel Street	7.20 p.m.	6.30 a.m.
Shrewsbury	Wonder	Bull and Mouth	7.5 a.m.	8.45 p.m.
§Stamford (via Hunt- ingdon)	Regent	George and Blue Boar, Holborn	8.50 a.m.	5.15 p.m.
Woburn and Welling- borough	—	Ditto	11.30 a.m.	1.15 p.m.
Ditto	(Mon., Wed., Fri., Tues., Th., Sat.)	Ditto	3.0 p.m.	10.30 a.m.
§York and Carlisle	Royal Express	Saracen's Head, Snow Hill	8.20 a.m.	11.50 a.m.

APPENDIX B.

A LIST OF COACHES RUNNING TO AND FROM NEWCASTLE-ON-TYNE IN THE YEAR 1831.

(Extracted from Oliver's 'Picture of Newcastle'.)

MAIL AND STAGE COACHES.

From Queen's Head Inn, Pilgrim Street.

The Royal mail *from* London arrives every morning (Tuesdays excepted) at 2.30, and departs for Edinburgh immediately after changing horses, and arrives there at 2.30 p.m.

The mail *from* Edinburgh arrives every evening (Fridays excepted) at 9.15, and departs for London at 9.30, where it arrives at 6 o'clock the second morning.

The mail *from* Carlisle arrives every day at 2.30 p.m., and *departs* again to same place at 7 a.m., and arrives at 2.30 p.m.

The Times *from* Leeds arrives every evening at 7, and departs every morning at 5 for same place, alternately, one morning from here, and the next from the Sun Inn, Newgate Street.

The Chevy Chase *from* Edinburgh arrives every evening at 8, and departs every morning at 6 (Sundays excepted), by way of Elsdon, Jedburgh, Melrose, etc., alternately; one day from here, and the next from Sun Inn, Newgate Street.

From the Turf Hotel, Collingwood Street.

The Highflyer *departs for* London every morning at 5, through Durham, York, Biggleswade, Hertford, etc., and arrives at 6 o'clock next evening.

The Wellington *departs for* London every morning at 8, through Durham, York, Doncaster, Stamford, Ware, etc., and arrives at 9 the next evening.

The Wellington *departs for* Edinburgh every morning (Sundays excepted) at 6.30, through Morpeth, Wooler, Coldstream, Kelso, and Lauder, and arrives at 9 the same evening.

The Express *departs for* London every morning at 10.15 to York, where it arrives at 9 the same evening. It starts next morning at 9, running through Doncaster, etc., and arrives next day at 1 p.m.

The Union *departs for* Edinburgh every morning (Sundays excepted) at 6, through Alnwick, Berwick, Dunbar, and Haddington, and arrives at 9 the same evening.

The Lord Exmouth *departs for* Lancaster every Monday, Wednesday, and Friday mornings at 5, through Bishop Auckland, Barnard Castle, and Brough, and arrives that evening at 8.

The Royal Telegraph *departs for* Leeds every morning at 5.45, through Durham, Catwick Bridge, Harrogate, etc., and arrives at 8 that evening.

The True Briton *departs for* Carlisle every morning at 8, through Hexham, Haltwhistle, etc., and arrives 2.30 p.m.

The Wellington *departs for* Sunderland every morning at 8.

From the Sun Inn, Newgate Street.

The Chevy Chase *departs for* Edinburgh every morning (Sundays excepted) at 6, alternately, one day from here, and next from Queen's Head, through Cambs, Otterburn, Jedburgh, Melrose, etc., and arrives at 8 the same evening.

The Times *departs for* Leeds every morning at 5 (Sundays excepted), and from Queen's Head Inn, by way of Durham, Stockton, etc., where it arrives at 7.30 in the evening.

The Wonder *departs for* Alnwick and Berwick at 10 every morning, and arrives at Alnwick at 3 and Berwick at 8. The Wonder *departs for* Durham every afternoon at 4 o'clock.

From Half Moon Inn, Bigg Market.

The True Briton *departs for* Durham every afternoon at 4.

The Phoenix *departs for* Morpeth every afternoon at 5.

The British Queen *departs for* Hexham every afternoon at 4 (through Corbridge).

The Adventure *departs for* Bedlington on Tuesday and Saturday at 4 p.m.

From Rose and Crown, Bigg Market.

The Defence *departs for* Alnwick and Berwick every morning at 10 by Morpeth and Belford.

The Wansbeck *departs for* Morpeth every afternoon at 5.

From White Hart, Cloth Market.

The Doctor Syntax *departs for* Hexham every afternoon at 3.30, through Gateshead, Stella, Prudhoe, etc.

The St. George *departs for* Sunderland at 8.30 every morning.

From Theatre Tavern, Theatre Square.

The Union *departs for* Sunderland every afternoon at 3.

From the Lord Collingwood, Theatre Square.

The Collingwood *departs for* Sunderland every afternoon at 5.

From the Wheat Sheaf, Bigg Market.

The Royal Pilot *departs* for Morpeth every afternoon at 5.

From the Unicorn, Bigg Market.

The Wear *departs* for Houghton le Spring every Wednesday afternoon at 4, and from the Black Bull, Gateshead, every Saturday afternoon at 4.

N.B.—Besides the above, there are about ten coaches and 28 gigs regularly employed in conveying passengers to and from North Shields and Tynemouth. These are generally found at the stand upon the quay. The gigs run once, twice, and sometimes thrice a day.

Note 1.—November 9, 1838. The railways from Newcastle to the South were so far completed as to enable two mails to be despatched daily to London, Liverpool, Manchester, etc. (*Vide Newcastle Courant.*)

Note 2.—July 1, 1847. The railway from Newcastle to Edinburgh was opened throughout.

Note 3.—July 5, 1847. The *last* mail-coach arrived in Newcastle from Edinburgh; the *first* coach November 27, 1786. (*Vide Newcastle Courant.*)

APPENDIX C.

A LIST OF COACHES STARTING FROM ELLIOTT'S ROYAL HOTEL,
DEVONPORT, IN 1830.

(From Brindley's 'Plymouth, Devonport, and Stonehouse Directory.')

The Quicksilver, Royal Mail to London.—Every morning at 6 o'clock, through Ivybridge, Ashburton, Chudleigh, Exeter (New London Inn), Honiton, Yeovil, Sherborne, Shaftesbury, Salisbury, and arrives at Nelson's Belle Sauvage, Ludgate Hill, London, the following morning at half-past 6 o'clock. The London mail arrives at 8 o'clock p.m., and the letters are delivered the same evening. The Exeter mail arrives at 12 midnight, and the letters are delivered in the morning.

The Royal Mail to Bath.—Every evening at 5 o'clock, through Erme Bridge, Newton, Exeter, Wellington, Bridgwater, and arrives at York House at half-past 5 the following evening.

The Royal Mail to Bristol—Every evening at 5, through Totnes, Chudleigh, Exeter, Taunton, Cross, and arrives at the Bush Inn and White Lion the following evening at 5 o'clock, in direct communication with the Birmingham mail.

The Royal Mail to Falmouth.—Every morning at 7 o'clock, through Liskeard, Lostwithiel, St. Austell, Truro, and arrives at Falmouth the same evening at 4 o'clock, from whence passengers are forwarded to Helston and Penzance.

APPENDIX D.

A LIST OF COACHES DESPATCHED FROM EXETER IN JANUARY,
1840, AS SHOWN BY 'WOOLMER'S GAZETTE.'

Time of Despatch.	Name of Coach.	Destination.
a.m.		
4.15	Royal Mail	Devonport.
5.45	—	Bath.
6.0	Telegraph	London in 15 hours (partly by rail).
6.20	Estafette	Taunton, Bristol in 7½ hours, Birmingham, Gloucester, and Oxford.
6.20	Regulator	Truro and Falmouth.
7.0	Red Rover	Dorchester, Weymouth, Southampton, and Portsmouth.
9.0	Exquisite	Bristol, Cheltenham, Birmingham, Manchester, and Liverpool (partly by rail).
9.0	—	Teignmouth.
9.0	Traveller	Dorchester, Weymouth, and Salisbury.
9.40	Royal Mail	Barnstaple, via Tiverton, Bideford, and Ilfracombe.
10.0	Ditto	Bath and Birmingham.
10.30	Subscription	Plymouth.
10.45	Quicksilver	Falmouth.
11.0	Subscription	Barnstaple, through Crediton and Eggesford.
p.m.		
12.30	—	Dorchester and Weymouth.
1.0	Nonpareil	Bristol and Birmingham.
3.0	Quicksilver	London in 14½ hours (partly by rail).
4.0	Herald	Salisbury.

APPENDIX E.

A COMPARISON OF THE TIMES OF THE MAIN LINES OF MAIL-COACHES IN ENGLAND AND WALES, *circa* THE ACCESSION OF HIS LATE MAJESTY KING WILLIAM IV., WITH THE TIMES OBSERVED IN THE YEAR OF THE ACCESSION OF HER MAJESTY QUEEN VICTORIA.

Note 1.—The figures printed in italics are estimated times.

Note 2.—Certain of the services were still further accelerated, and some new ones were established after 1836.

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
		Miles.			
Bath	<i>Maidenhead</i>	109	London dep.	8.0 p.m.	8.0 p.m.
Down, 11 h.	<i>Hungerford</i>		Bath arr.	7.54 a.m.	7.27 a.m.
54 m.	<i>Devizes</i>		„ dep.	6.15 p.m.	7.10 p.m.
Up, 11 h.			G.P.O. arr.	6.9 a.m.	6.40 a.m.
54 m.					
Birmingham	<i>Edgware</i>	119	London dep.	8.0 p.m.	8.0 p.m.
Down, 13 h.	<i>Tring</i>	42	Aylesbury	12.40 a.m.	12.40 a.m.
34 m.		74	Banbury	4.40 a.m.	4.15 a.m.
Up, 12 h.		98	Warwick	7.37 a.m.	7.3 a.m.
42 m.			(stop 20 m.)		
			Birmingham		
			„ arr.	9.34 a.m.	9.39 a.m.
			„ dep.	5.30 p.m.	5.30 p.m.
			Warwick	6.55 p.m.	7.46 p.m.
			Banbury	9.52 p.m.	10.34 p.m.
			Aylesbury	2.19 a.m.	2.19 a.m.
			G.P.O. arr.	6.12 a.m.	6.12 a.m.
Brighton	<i>Croydon</i>	53	London dep.	8.0 p.m.	8.0 p.m.
Down, 7 h.	<i>Crawley</i>		Brighton arr.	3.45 a.m.	3.20 a.m.
45 m.	<i>Staplefield</i>		„ dep.	10.30 p.m.	10.30 p.m.
Up, 7 h.	<i>Common</i>		G.P.O. arr.	5.55 p.m.	5.55 p.m.
25 m.					

306 FORTY YEARS AT THE POST-OFFICE

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
Bristol Down, 13 h. 37 m. Up, —	<i>Reading</i> <i>Newbury</i> <i>Marl-</i> <i>borough</i>	Miles. 122	London dep.	8.0 p.m.	8.0 p.m.
		109	Bath	8.11 a.m.	7.21 a.m.
			Bristol arr.	9.37 a.m.	8.43 a.m.
			„ dep.	5.50 p.m.	6.15 p.m.
			G.P.O. arr.	Not known	6.58 a.m.
Carlisle Down, 34 h. 7 m. Up, 35 h. 50 m.	<i>Barnet</i> <i>Doncaster</i> <i>Ripon</i> <i>Brough</i> <i>Penrith</i>	311	London dep.	8.0 p.m.	8.0 p.m.
			St. Neots	2.10 a.m.	—
		65	Alconbury Hill	—	2.59 a.m.
		110	Grantham (stop 40 m.)	8.5 a.m.	7.40 a.m.
			Leeds (stop 35 m.)	4.50 p.m.	
		(In 1836, 302 miles to Carlisle)	Carlisle arr.	6.7 a.m.	4.17 a.m.
			„ dep.	7.0 p.m.	8.0 p.m.
			Leeds (stop 46 m.)		
			Newark (stop 40 m.)		
			G.P.O. arr.	6.50 a.m.	5.13 a.m.
Chester Down, 21 h. 47 m. Up, 22 h. 47 m.	<i>Redbourne</i> <i>Nantwich</i>	191	London dep.	8.0 p.m.	8.0 p.m.
		67	Northampton	3.29 p.m.	3.31 a.m.
		101	Hinckley (stop 30 m.)	7.21 a.m.	6.36 a.m.
		142	Stafford	12.20 p.m.	11.11 a.m.
			Chester arr.	5.47 p.m.	4.16 p.m.
			„ dep.	8.0 a.m.	10.10 a.m.
			Stafford	1.27 p.m.	3.7 p.m.
			Lichfield (stop 30 m.)	3.21 p.m.	5.2 p.m.
			Hinckley	6.26 p.m.	7.45 p.m.
			Northampton (stop 20 m.)	10.31 p.m.	11.27 p.m.
Devonport Down, 23 h. 42 m. Up, 24 m. 45 m.	<i>Andover</i> <i>Salisbury</i> <i>Shaftesbury</i> <i>Ivy Bridge</i>	218 m.	G.P.O. arr.	6.47 a.m.	6.37 a.m.
		6 f.	London dep.	8.0 p.m.	8.0 p.m.
		125	Yeovil (stop 30 m.)	8.56 a.m.	9.9 a.m.
		171	Exeter (stop 30 m.)	2.24 p.m.	2.28 p.m.
		(In 1836, 217 miles to Devonport)	Devonport		
			„ arr.	7.42 p.m.	7.44 p.m.
			„ dep.	6.15 a.m.	7.0 a.m.
			Exeter (stop 30 m.)	—	11.48 a.m.
			Yeovil (stop 30 m.)	4.38 p.m.	4.55 p.m.

Mall-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
		Miles.			
Devonport (continued)			Sarum dep.	9.58 p.m.	9.50 p.m.
Dover	<i>Gravesend</i>	73	G.P.O. arr.	7.0 a.m.	6.48 a.m.
Down, 9 h.	<i>Canterbury</i>		London dep.	8.0 p.m.	8.0 p.m.
45 m.			Dover arr.	5.45 a.m.	4.57 a.m.
Up, 9 h.			Deal arr.	7.0 a.m.	6.30 a.m.
45 m.			Dover dep.	8.0 p.m.	9.45 p.m.
			Deal dep.	7.0 p.m.	6.30 p.m.
			G.P.O. arr.	5.45 a.m.	5.29 a.m.
Edinburgh (York coach)	<i>Waltham</i>	399 m.	London dep.	8.0 p.m.	8.0 p.m.
Down, 44 h.	<i>Cross</i>	4 f.	Huntingdon	2.44 a.m.	2.30 a.m.
43 m.	<i>Tadcaster</i>	59	Stilton	4.3 a.m.	3.45 a.m.
Up, 46 h.	<i>Darlington</i>	72	Grantham		
	<i>Morpeth*</i>	108	arr.	8.0 a.m.	7.23 a.m.
	<i>Berwick-on-</i>		(stop 40 m.)		
	<i>Tweed</i>	122	Newark arr.	10.10 a.m.	9.30 a.m.
		196	York (stop 40 m.)	5.31 p.m.	4.54 p.m.
		278	Newcastle	2.37 a.m.	1.50 a.m.
			Edinburgh		
			arr.	4.43 p.m.	2.23 p.m.
			" dep.	8.0 a.m.	8.0 a.m.
			Newcastle	9.22 p.m.	9.22 p.m.
			Stilton	9.34 p.m.	9.33 a.m.
			Huntingdon	11.4 p.m.	10.53 a.m.
			G.P.O. arr.	6.0 a.m.	5.37 a.m.
Ditto (Wetherby coach)	<i>Waltham</i>	392	London dep.	8.0 p.m.	8.0 p.m.
Down, 45 h.	<i>Cross</i>		Stilton	4.13 a.m.	3.56 a.m.
14 m.	<i>Hoddesdon</i>		Grantham	8.5 a.m.	7.40 a.m.
	<i>Huntingdon</i>		Wetherby arr.	5.6 p.m.	4.36 p.m.
	<i>Doncaster</i>		" dep.	6.26 p.m.	(Glasgow mail in 1836)
	<i>Darlington</i>				
	<i>Durham</i>		Belford (stop 40 m.)	8.37 a.m.	
	<i>Newcastle</i>		Berwick-on Tweed		
			Edinburgh		
			arr.	5.14 p.m.	
			" dep.	8.0 a.m.	
			Belford (stop 30 m.)		
			Newcastle	10.1 p.m.	
			Wetherby	7.13 a.m.	7.22 a.m.
			Ferry Bridge (stop 40 m.)	9.5 a.m.	9.36 a.m.

[Note.—Before 1832 the route north of Wetherby was diverted to Carlisle and Glasgow.]

308 FORTY YEARS AT THE POST-OFFICE

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
		Miles.			
Edinburgh (Wetherby coach) (<i>con- tinued</i>)			Grantham (stop 40 m.) G.P.O. arr.	5.9 p.m. Not known	5.6 p.m. 5.13 a.m.
Falmouth Down, 34 h. 44 m.	<i>Bagshot</i> <i>Basingstoke</i>	273 84	London dep. Sarum (Salis- bury)	8.0 p.m. 6.12 a.m.	8.0 p.m. 4.52 a.m.
Up, 35 h. 40 m.	<i>Launceston</i> <i>Bodmin</i>	123	Dorchester (stop 30 m.)	10.30 a.m.	8.57 a.m.
		176	Exeter arr. „ dep.	4.2 p.m. 6.30 p.m.	2.59 p.m.
		(In 1836, 271 miles to Fal- mouth)	Falmouth arr. „ dep. Exeter arr. „ dep. Dorchester (stop 30 m.) Sarum (stop 20 m.) G.P.O. arr.	6.44 a.m. 7.0 p.m. 7.15 a.m. 10.0 a.m. 4.9 p.m. 9.3 p.m.	5.55 a.m. 8.0 p.m. 11.5 a.m. 4.54 p.m. 9.24 p.m.
Gloucester Down, 12 h. 45 m.	<i>Northleach</i> [<i>Note</i> .—Before 1836 coach ex- tended from Cheltenham (7.20 a.m.) to Aberystwith.]	112 61 102	London dep. Oxford Cheltenham Gloucester	8.0 p.m. 2.56 a.m. 7.38 a.m. arr.	8.0 p.m. 2.38 a.m. 7.3 a.m.
Up, 13 h. 11 m.			„ arr. „ dep. Cheltenham (stop 15 m.) Oxford (stop 28 m.) G.P.O. arr.	8.45 a.m. 5.45 p.m. 6.45 p.m. 11.32 p.m. 6.56 a.m.	8.0 a.m. 7.0 p.m. 7.57 p.m. 12.19 a.m.
Hastings Down, 9 h. 0 m.	<i>Footscray</i> <i>Sevenoaks</i> <i>Tunbridge</i>		London dep. Hastings arr.	8.0 p.m. 5.0 a.m.	8.0 p.m. 5.14 a.m.
Up, 9 h. 1 m.	<i>The Wells</i> <i>Lamber- hurst</i> <i>Battle</i>		„ dep. G.P.O. arr.	9.0 p.m. 6.1 a.m.	9.0 p.m. 6.1 a.m.
Holyhead Down, 29 h. 17 m.	<i>Barnet</i> <i>Coventry</i> <i>Bangor</i>	261 61 110	London dep. Towcester Birmingham (stop 35 m.)	8.0 p.m. 2.36 a.m. 7.58 a.m.	8.0 p.m. 2.12 a.m. 7.8 a.m.
Up, 30 h. 17 m.		154 195	Salop (stop 20 m.) Corwen (stop 30 m.) Holyhead arr.	1.9 p.m. 5.43 p.m. 1.17 a.m.	noon 3.55 p.m. 10.55 p.m.

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
Holyhead (continued)		Miles.	Holyhe'd dep.	12.0 mid- night	4.15 a.m.
			Corwen (stop 30 m.)	7.6 a.m.	11.4 a.m.
			Salop (stop 20 m.)	11.50 a.m.	3.1 p.m.
			Birmingham (stop 38 m.)	4.57 p.m.	7.31 p.m.
			Coventry	8.0 p.m.	9.46 p.m.
			Towcester	11.30 p.m.	12.49 a.m.
			G.P.O. arr.	6.17 a.m.	7.0 a.m.
Hull Down, 20 h. 0 m.	<i>Peter- borough Barton-on- Humber</i>	170 to Barton (177 to Hull)	London dep.	8.0 p.m.	8.0 p.m.
			Stilton	4.20 a.m.	—
			Lincoln	11.22 a.m.	10.22 a.m.
			Brigg	2.5 p.m.	12.54 p.m.
			Barton arr.	3.30 p.m.	2.0 p.m.
			Hull arr.	4.0 p.m.	2.45 p.m.
			„ dep.	10.0 a.m.	11.30 a.m.
			Barton dep.	—	12.15 p.m.
			Lincoln (stop 30 m.)	3.3 p.m.	3.43 p.m.
			G.P.O. arr.	Not known	6.25 a.m.
Leeds Down, 23 h. 38 m. Up, 24 h. 0 m.	<i>Barnet</i> [By this mail in 1836 the very short space of time of 1 h. 11 m. was allowed for the run (11 miles) to Barnet. The Glasgow mail in 1836 also served Leeds by means of a branch from Pontefract.]	196 m. 2 f. 106 125 164	London dep.	8.0 p.m.	8.0 p.m.
			Melton Mow- bray arr.	8.1 a.m.	6.57 a.m.
			Nottingham	10.43 a.m.	9.11 a.m.
			Sheffield (stop 25 m.)	3.20 p.m.	1.19 p.m.
			Leeds arr.	7.38 p.m.	4.52 p.m.
			„ dep.	9.15 p.m.	9.15 p.m.
			Sheffield arr.	1.5 a.m.	12.33 a.m.
			Nottingham (stop 15 m.)	5.45 a.m.	4.44 a.m.
			Melton Mow- bray (stop 15 m.)	8.12 a.m.	6.51 a.m.
			Bedford (stop 30 m.)	2.55 p.m.	12.59 p.m.
			Welwyn	6.17 p.m.	3.47 p.m.
			Barnet	7.55 p.m.	5.10 p.m.
			G.P.O. arr.	9.15 p.m.	6.30 p.m.
Liverpool Down, 22 h. 17 m. Up, 23 h. 0 m.	<i>Barnet St. Albans The Potteries.</i>	203	London dep.	8.0 p.m.	8.0 p.m.
			Coventry (stop 30 m.)	6.0 a.m.	5.18 a.m.
			Lichfield	9.20 a.m.	8.2 a.m.
			Stone	11.40 a.m.	10.41 a.m.

310 FORTY YEARS AT THE POST-OFFICE

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
		Miles.			
Liverpool (continued)			Newcastle	12.32 p.m.	11.33 a.m.
			Liverpool arr.	6.17 p.m.	4.50 p.m.
			„ dep.	10.30 p.m.	9.45 p.m.
			Lichfield (stop 30 m.)	7.34 a.m.	6.3 a.m.
			Stoney Strat- ford(st.30 m.)	3.15 p.m.	1.9 p.m.
Ditto (out of the Chester mail)	Woodside	206	G.P.O. arr.	9.30 p.m.	6.30 p.m.
			London dep.	—	8.0 p.m.
			Liverpool arr.	—	6.23 p.m.
			„ dep.	—	8.20 a.m.
			G.P.O. arr.	—	6.37 a.m.
Louth	Waltham	155	London dep.	8.0 p.m.	8.0 a.m.
Down, 19 h.	Cross	52	Cambridge	2.11 a.m.	*
46 m.	Stilton	77	Peterborough (stop 30 m.)	6.22 a.m.	4.24 a.m.
Up, 19 h.	(* In 1836 the Wells coach took the Cam- bridge mail.)	114	Boston (stop 20 m.)	10.56 a.m.	8.9 a.m.
56 m.			Louth arr.	3.46 p.m.	11.56 a.m.
			„ dep.	11.0 a.m.	2.15 p.m.
			Boston (stop 30 m.)	3.30 p.m.	5.37 p.m.
			Peterborough (stop 30 m.)	8.4 p.m.	9.32 p.m.
			G.P.O. arr.	6.56 a.m.	6.11 a.m.
Ludlow	High Wy-	147	London dep.	8.0 p.m.	8.0 p.m.
Down, 17 h.	combe		Oxford	2.30 a.m.	2.7 a.m.
42 m.	Moreton-in-	115	Worcester (stop 30 m.)	9.17 a.m.	8.20 a.m.
Up, 19 h.	the-Marsh		Ludlow arr.	1.42 p.m.	12.24 p.m.
10 m.			„ dep.	11.15 a.m.	1.45 p.m.
			Worcester arr.	3.10 p.m.	} 5.45 } p.m.
			„ dep.	4.45 p.m.	
			Oxford arr.	11.30 p.m.	
			„ dep.	midnight	12.7 a.m.
			G.P.O. arr.	6.55 a.m.	6.25 a.m.
Manchester	Dunstable	187	London dep.	8.0 p.m.	8.0 p.m.
Down, 20 h.	Woburn	99	Leicester (stop 30 m.)	6.26 a.m.	6.3 a.m.
15 m.	Northamp-		Derby	9.30 a.m.	9.7 a.m.
Up, 21 h.	ton	127	Manchester		
13 m.	Leek		„ arr.	4.15 p.m.	3.0 p.m.
	Stockport		„ dep.	9.30 a.m.	10.0 a.m.
			Derby (stop 25 m.)	„	4.20 p.m.
			Leicester (stop 20 m.)	„	7.38 p.m.
			G.P.O. arr.	6.48 a.m.	6.26 a.m.

APPENDIX

311

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Time of Arrival or Departure.	At the Queen's Accession.
		Miles.			
Norwich (Colchester coach)	<i>Chelmsford Colchester</i>	113	London dep.	8.0 p.m.	8.0 p.m.
Down, 12 h. 57 m.		70	Ipswich	4.1 a.m.	3.12 a.m.
Up, 14 h. 0 m.			Norwich arr.	8.57 a.m.	7.38 a.m.
Ditto			" dep.	5.0 p.m.	5.0 p.m.
(New- market coach)			Ipswich (stop 30 m.)	10.0 p.m.	11.21 p.m.
Down, 13 h. 0 m.	<i>Bishop's Stortford</i>	118	G.P.O. arr.	7.0 a.m.	6.43 a.m.
Up, 13 h. 54 m.	<i>Bury St. Edmunds</i>	62	London dep.	8.0 p.m.	8.0 p.m.
Portsmouth	<i>Thetford</i>		Newmarket	—	2.54 a.m.
Down, 9 h. 10 m.			Norwich arr.	9.0 a.m.	9.5 a.m.
Up, 10 h. 0 m.			" dep.	5.0 p.m.	5.0 p.m.
			Bury (stop 15 m.)	9.33 p.m.	9.33 p.m.
			G.P.O. arr.	6.54 a.m.	6.29 a.m.
	<i>Cobham</i>	73	London dep.	8.0 p.m.	8.0 p.m.
	<i>Guildford</i>	13	Kingston	9.35 p.m.	9.35 p.m.
		55	Petersfield	2.55 a.m.	2.55 a.m.
			Portsmouth		
			arr.	5.10 a.m.	5.10 a.m.
			" dep.	8.30 p.m.	9.30 p.m.
			G.P.O. arr.	6.30 a.m.	6.30 a.m.
			London dep.	8.0 p.m.	8.0 p.m.
			Southampton	5.32 a.m.	4.30 a.m.
			(stop 28 m.)		
			Poole arr.	10.20 a.m.	9.18 a.m.
			" dep.	4.30 p.m.	5.0 p.m.
			Southampton	8.50 p.m.	9.18 p.m.
			(stop 25 m.)		
			G.P.O. arr.	6.22 a.m.	6.25 p.m.
			London dep.	8.0 p.m.	8.0 p.m.
			Stroud arr.	8.0 a.m.	8.9 a.m.
			" dep.	7.0 p.m.	6.50 p.m.
			G.P.O. arr.	7.0 a.m.	6.59 a.m.
			London dep.		8.0 p.m.
			Cambridge		1.36 a.m.
			Ely	Not running	3.31 a.m.
			Lynn		6.33 a.m.
			Wells arr.		10.43 a.m.
			" dep.		3.15 p.m.
			G.P.O. arr.		6.8 a.m.
			London dep.	6.30 p.m.	8.0 p.m.
			Ipswich (stop 15 m.)	4.0 a.m.	3.12 a.m.
			Wickham Market	—	4.57 a.m.

312 FORTY YEARS AT THE POST-OFFICE

Mail-Coach. From London to	By what Route.	Distance.	Some Points of Call.	Times of Arrival or Departure.	At the Queen's Accession.
Yarmouth (continued)		Miles.	Yarmouth arr. " dep. Wickham Market Ipswich G.P.O. arr.	11.8 a.m. 3.15 p.m. — 10.8 p.m. 7.50 a.m.	9.30 a.m. 5.0 p.m. 9.41 p.m. 11.21 p.m. 6.43 a.m.

SOME OF THE PRINCIPAL BRANCH MAIL-COACHES

Between	Some Points of Call.	Time-bill	
		At King William IV.'s Accession.	At the Queen's Accession.
BATH, EXETER, and DEVONPORT 136 miles, viâ Bridge- water and Ivy Bridge. Down, 16 h. 20 m. Up, 24 h. 15 m. <i>Note.</i> —In 1836 this coach ran on to Fal- mouth, 198 miles from Bath, 307 from London.	Bath dep. Taunton (st. 20 m.) Exeter arr. " dep. Devonport arr. Down, " dep. Falmouth arr. " dep. Devonport dep. Exeter arr. " dep. Taunton Bath arr.	8.5 a.m. 2.22 p.m. 6.15 p.m. 6.45 p.m. 12.25 a.m. — — 5.0 p.m. 10.54 p.m. 8.15 a.m. 11.48 a.m. 5.45 p.m.	7.32 a.m. 1.15 p.m. 4.49 p.m. — 10.30 p.m. 7.0 a.m. 4.25 p.m. 7.0 a.m. 5.0 p.m. 10.54 p.m. 10.0 a.m. 1.14 p.m. 7.5 p.m.
BRISTOL, CARMARTHEN, and MILFORD 150 miles viâ New Passage (one hour allowed for Ferry), Cardiff, and Swan- sea. Down, 19 h. 38 m. Up, 20 h. 0 m.	Bristol dep. Newport Carmarthen (stop 15 m.) Milford arr. " dep. Carmarthen (stop 20 m.) Bristol arr.	9.49 a.m. 1.3 p.m. 11.29 p.m. 5.27 a.m. 7.30 p.m. — 3.30 p.m.	9.49 a.m. 1.4 p.m. 10.21 p.m. 3.21 a.m. 10.20 p.m. 3.5 a.m. 6.15 p.m.
DEVONPORT and FAL- MOUTH 66 miles, viâ Lis- keard, St. Austell, and Truro. Down, 9 h. 22 m. Up, h. 0 m.	Devonport dep. Falmouth arr. " dep. Devonport arr.	7.0 a.m. 4.22 p.m. 7.15 a.m. 4.15 p.m.	7.0 a.m. 4.25 p.m. 7.0 a.m. 5.0 p.m.

SOME OF THE PRINCIPAL BRANCH MAIL-COACHES (*continued*)

Between	Some Points of Call.	Time-bill	
		At King William IV.'s Accession.	At the Queen's Accession.
GLOUCESTER and CARMARTHEN 111 miles, via Ross and Llandovery. Down, 13 h. 59 min. Up, 15 h. 15 m.	Gloucester dep.	9.30 a.m.	8.10 a.m.
	Abergavenny (stop 30 m.)	2.55 p.m.	12.58 p.m.
	Brecon	5.50 p.m.	3.26 p.m.
	Carmarthen arr.	11.29 p.m.	8.0 p.m.
	„ dep.	1.15 a.m.	7.10 a.m.
	Gloucester arr.	4.30 p.m.	7.0 p.m.
MANCHESTER, CARLISLE, and GLASGOW 213 miles, via Preston, Lancaster, Moffatt, and Hamilton. Down, 23 h. 46 m. Up, 25 h. 26 m.	Manchester dep.	5.0 p.m.	4.0 p.m.
	Carlisle arr.	6.21 a.m.	4.53 a.m.
	„ dep.	7.0 a.m.	5.0 a.m.
	Glasgow arr.	4.46 p.m.	2.0 p.m.
	„ dep.	7.45 a.m.	7.50 a.m.
	Carlisle arr.	5.30 p.m.	Not known
	„ dep.	7.0 p.m.	6.30 p.m.
	Manchester arr.	8.31 a.m.	7.7 a.m.

Note.—The greatest distances traversed by mail-coaches were those performed by the London and Portpatrick night mail (424 miles), via Derby, Manchester, Lancaster, Carlisle, and Dumfries; and the London and Thurso night mail (783 miles), via York, Newcastle, Edinburgh, Dundee, Aberdeen, and Inverness. In 1832 the former mail was due at Portpatrick at 9.47 p.m. on the third day from London (49 h. 47 m.) and in 1836 at 9.22 p.m. The latter mail in 1832 was due at Thurso on the fifth day at 8.50 p.m. (96 h. 50 m.) and in 1836 at 6 p.m.

APPENDIX F.

A LIST OF DAY COACHES RUNNING IN 1836, WHICH (BESIDES THE NIGHT MAIL-COACHES AND THE STAGES DESPATCHED IN THE AFTERNOON AND EVENING) LEFT LONDON NOT LATER THAN NOON.

Destination.	London Coach Office.	Down Journey.		Time occupied on Down Journey.	Up Journey.	
		Dep. a.m.	Arr. p.m.		Dep. a.m.	Arr. p.m.
Banbury	King's Arms	8.30	5.14	8½	8.0	5.0
Ditto	Bell and Crown	8.45	5.30	8½	8.0	5.0
Birmingham	Bull and Mouth	8.0	8.0	12	9.0	9.0
Ditto	Spread Eagle	8.15	9.23	13½	p.m. 8.0	a.m. 6.17
Ditto	Golden Cross	7.0	7.0	12	a.m. 7.0	p.m. 7.0
Ditto	Bull and Mouth	7.0	8.0	13	7.45	9.0
Ditto	White Horse	7.0	8.0	13	8.0	9.0
Ditto	Golden Cross	7.30	8.0	12½	7.30	8.0
Ditto	Swan with Two Necks	8.0	7.30	11½	8.0	7.30
Bognor	Golden Cross	8.0	5.0	9	8.0	5.0
Boston	King's Arms	7.30	9.10	13½	p.m. 6.0	7.50
Brighton	Spread Eagle	8.0	2.45	6½	p.m. 3.0	a.m. 8.45
Ditto	Ditto	10.0	4.15	6½	a.m. 10.0	4.15
Ditto	White Horse	8.0	5.0	9	8.0	5.0
Ditto	Golden Cross	10.0	4.0	6	10.0	4.0
Bridgwater	Bell and Crown	7.45	10.15	14½	7.0	10.0
Bristol	Swan with Two Necks	7.0	8.45	13½	7.45	7.45
Ditto	Spread Eagle	7.0	9.0	14	7.0	9.0
Ditto	Bull and Mouth	6.0	8.20	14½	7.0	8.50
Bury	Golden Cross	8.30	5.30	9	8.30	5.30
Ditto	Spread Eagle	8.45	6.0	9½	9.0	6.0
Cambridge	Golden Cross	10.0	4.0	6	10.0	4.0
Ditto	White Horse	10.0	4.0	6	10.0	4.0
Cheltenham	Cross Keys	7.45	6.30	10½	8.0	7.0
Ditto	Spread Eagle	7.30	6.15	10½	9.0	8.15
Chichester	Cross Keys	9.45	4.0	6½	9.45	4.0
Colchester	Spread Eagle	9.0	3.15	6½	9.0	3.15
Dorking	Golden Cross	8.30	noon.	3½	p.m. 4.0	7.30

Destination.	London Coach Office.	Down Journey.		Time occupied on Down Journey.	Up Journey.	
		Dep. a.m.	Arr. p.m.		Dep. a.m.	Arr. p.m.
Dover	Spread Eagle	8.0	5.15	9½	8.0	5.0
Ditto	Ditto	10.0	7.0	9	10.0	7.0
Ditto	Bell and Crown	9.0	5.0	8	9.0	5.0
Ditto	Ditto	11.0	7.0	8	11.0	7.0
Ditto	Golden Cross	8.0	5.30	9½	8.0	5.0
Ditto	Old Bell and Golden Cross	10.30	7.30	9	10.0	7.0
Eastbourne	George and Blue Boar	8.0	5.0	9	8.0	5.0
Exeter	Swan with Two Necks	9.0	6.9	21½	9.0	5.17
Ditto	Bull and Mouth	4.45 noon.	10.0	17½	5.0	10.0
Feversham	Spread Eagle	12.0 a.m.	6.0	6	10.0	4.0
Gloucester	Bell and Crown	8.0	7.0	11	6.0	5.30
Ditto	Spread Eagle	7.45	8.0	12½	7.0	7.0
Gosport	Spread Eagle	7.30	5.0	9½	8.0	5.45
Hastings	Golden Cross	8.0	4.30	8½	9.0	4.30
Hereford	Bull and Mouth	6.0	10.0	16	5.45	9.45
Holt and Fakenham	White Horse	6.0	8.0	14	7.0	9.0
Horsham	Old Bell		No	record.		
Leamington	King's Arms	9.30	8.0	10½	9.0	7.15
Leeds	George and Blue Boar	5.15	4.0	10½	Not	known
Leicester	Bull and Mouth	7.45	7.0	11½	8.0	7.30
Lewes	Golden Cross	9.30	3.30	6	9.30	4.0
Lincoln	Spread Eagle	6.0	9.45	15½	6.0	9.45
Little Hampton	Spread Eagle	7.15	4.0	8½	7.0	5.0
Ditto	Golden Cross	8.0	5.0	9	8.0	5.0
Liverpool	Swan with Two Necks	10.30	12.0	25½	10.30	12.0
Ditto	Spread Eagle	8.15	8.0	23½	8.0	8.0
Lynn	White Horse	7.30	6.0	10½	8.0	6.15
Ditto	Golden Cross	7.30	7.0	11½	7.30	7.0
Manchester	Swan with Two Necks	9.45	7.25	21½	10.0	7.25
Ditto	Bull and Mouth	5.30	11.15	17½	5.0	11.30
Newbury	Spread Eagle	10.0	7.0	9	11.0	8.0
Ditto	Ditto	10.30	4.0	5½	1.0	7.0

316 FORTY YEARS AT THE POST-OFFICE

Destination.	London Coach Office.	Down Journey.		Time occupied on Down Journey.	Up Journey.	
		Dep. noon.	Arr. p.m.	Hours.	Dep. a.m.	Arr. p.m.
Northampton	Bull and Mouth	12.0 a.m.	7.45	7 $\frac{1}{2}$	9.0	4.45
Norwich	Spread Eagle	6.30	7.45	13 $\frac{1}{2}$	7.0	8.0
Ditto	Golden Cross	7.0	7.0	12	7.0	7.0
Nottingham	Swan with Two Necks	6.45	9.30	14 $\frac{3}{4}$	7.45	10.0
Oundle	George and Blue Boar	7.0	6.0	11	7.0	6.30
Oxford	Cross Keys	9.45	4.0	6 $\frac{1}{2}$	9.45	4.0
Portsmouth	Golden Cross	9.30 noon.	5.30	8	10.0 noon.	7.0
Ditto	King's Arms	12.0 a.m.	8.0	8	12.0 a.m.	8.0
Ditto	Spread Eagle	9.0	5.15	8 $\frac{1}{2}$	11.0	7.0
Ditto	Bull and Mouth	8.0	5.0	9	9.0	6.0
Salisbury	White Horse	7.45	6.0	10 $\frac{1}{2}$	8.0	6.30
Shrewsbury	Golden Cross	5.45	9.30	15 $\frac{3}{4}$	5.45	9.30
Ditto	Bull and Mouth	6.30	10.30	16	5.45	9.45
Ditto	Ditto	6.0	10.45	16 $\frac{3}{4}$	5.30	10.15
Southampton	Spread Eagle	11.15	8.0	8 $\frac{1}{2}$	11.15	8.0
Ditto	Ditto	7.0	4.15	9 $\frac{1}{2}$	9.0	6.0
Ditto	Bell and Crown	11.0 noon.	7.0	8	11.0 noon.	7.0
Ditto	Ditto	12.0 a.m.	8.0	8	12.0 a.m.	8.0
Ditto	Cross Keys	7.45	4.0	8 $\frac{1}{2}$	7.45	4.0
Stamford	George and Blue Boar	7.45	7.0	11 $\frac{1}{2}$	7.0	6.30
Ditto	White Horse	7.30	6.0	10 $\frac{1}{2}$	7.30	6.0
Ditto	Bell and Crown	8.30	6.30	10	8.0	6.30
Stroudwater	Old Bell		No	record.	Not known	
Tunbridge Wells	George and Blue Boar	9.30	1.45	4 $\frac{1}{2}$	p.m. 3.30	8.0
Uppingham	Ditto	8.0	7.0	11	a.m. 8.0	6.30
Wells, Norfolk	Golden Cross	5.45	9.0	15 $\frac{1}{2}$	5.45	9.0
Wellingboro'	George and Blue Boar	9.30	6.0	8 $\frac{1}{2}$	6.30	3.0
Wisbeach	Golden Cross	7.15	7.0	11 $\frac{3}{4}$	7.15	6.30
Woodstock	Bull and Mouth	10.0	6.15	8 $\frac{1}{2}$	8.0	4.45
Worcester	Bull and Mouth	5.30	9.0	15 $\frac{1}{2}$	5.45	8.15
Worthing	White Horse	8.30	4.0	7 $\frac{1}{2}$	9.0	4.30
Ditto	Golden Horse	8.45	3.30	6 $\frac{1}{2}$	8.45	3.30
Yarmouth	Spread Eagle	6.30	9.0	14 $\frac{1}{2}$	6.30	9.0
York	White Horse	8.30	7.10	22 $\frac{3}{4}$	a.m. 6.0	3.47

APPENDIX G.

FOUR SPECIMENS OF PARCEL MAIL-COACH TIME-BILLS IN USE AT
THE PRESENT DAY.

Parcel Coach Time-bill.

GENERAL POST-OFFICE.



The Right Hon. ARNOLD MORLEY, M.P., Postmaster-General.

London to Brighton—Night Mail Down.

Guard's Remarks as to Delays, etc.		Proper Times.	Actual Times by Post- Office Watch.	This Column to be left blank.
		H. M.	H. M.	
LONDON TO BRIGHTON, 52 miles.	To be despatched from the London Bridge Parcel Depot the day of 189 at	P. M. 9 45		
	Croydon { arr. 10 55	dep. 11 0		
	Bedhill { arr. 12 27	dep. 12 32		
	Horley { arr. 1 5	dep. 1 15		
	Crawley { arr. 1 55	dep. 2 0		
	Cuckfield { arr. 2 55	dep. 3 0		
	Hassocks { arr. 3 40	dep. 3 45		
	Brighton arr. 4 45			
Signature of Guard.				

London and Bedford Road Parcel Service—
Night Mail Down.

Guard's Remarks as to Delays, etc.		Proper Times.	Actual Times by Post- Office Watch.	This Column to be left blank.
		H. M.	H. M.	
LONDON TO BEDFORD, 52 miles.	To be despatched from the Mount Pleasant Parcel Office, London , the day of 189 at	P. M. 9 45		
	Barnet { arr. 11 8	dep. 11 10		
	Hatfield { arr. 12 14	dep. 12 16		
	Welwyn { arr. 12 58	dep. 1 0		
	Stevenage { arr. 1 49	dep. 1 51		
	Hitchin { arr. 2 25	dep. 2 35		
	Henlow Station { arr. 3 10	dep. 3 12		
	Bedford arr. 4 40			
Signature of Guard.				

London, Chelmsford, Colchester, and Ipswich Road

Parcel Service—

Night Mail Down.

Guard's Remarks as to Delays, etc.		Proper Times.	Actual Times by Post- Office Watch.	This Column to be left blank.
		H. M.	H. M.	
LONDON TO COLCHESTER, 53 miles 3 fur- longs. COL- CHESTER TO IPSWICH, 18½ miles	To be despatched from the Mount Pleasant Parcel Depot the day of 189 , at		P.M. 9 45	
	Eastern District P.O.	{ arr. 10 8 dep. 10 10		
	Bomford	{ arr. 11 40 dep. 11 42		
	Brentwood	{ arr. 12 29 dep. 12 31		
	Ingatestone	{ arr. 1 9 dep. 1 11		
	Chelmsford	{ arr. 2 0 dep. 2 5		
	Witham	{ arr. 3 13 dep. 3 15		
	Kelvedon	{ arr. 3 41 dep. 3 43		
	Colchester	{ arr. 5 0 dep. 5 5		
	Stratford St. Mary	{ arr. 5 59 dep. 6 0		
	Ipswich	arr. 7 20		
	Signature of Guard.			
	This part of the journey is performed by a single horse cart.			

London and Oxford Road Parcel Service—

Night Mail Down.

Guard's Remarks as to Delays, etc.		Proper Times.	Actual Times by Post- Office Watch.	This Column to be left blank.
		H. M.	H. M.	
LONDON TO OXFORD, 67 miles.	To be despatched from the Paddington Parcel Depot the day of 189 , at		P.M. 10 30	
	Brentford			
	Isleworth			
	Hounslow			
	Colnbrook	{ arr. 12 43 dep. 12 48		
	Slough	{ arr. 1 14 dep. 1 19		
	Maidenhead	{ arr. 2 3 dep. 2 8		
	Twyford	{ arr. 3 8 dep. 3 13		
	Reading	{ arr. 4 0 dep. 4 10		
	Wallingford	{ arr. 6 15 dep. 6 20		
	Oxford	arr. 8 5		
	Signature of Guard.			

APPENDIX H.

FORMS OF TIME BILL, IN FOUR PORTIONS, USED FOR THE SPECIAL NIGHT MAIL TRAIN BETWEEN EUSTON SQUARE RAILWAY TERMINUS, GLASGOW, AND ABERDEEN.

Special Night Mail—Daily.

GENERAL POST-OFFICE.



The Right Honourable ARNOLD MORLEY, M.P., Postmaster-General.

London, Crewe, and Carlisle TIME BILL.

Remarks as to Delays, etc.	Proper Times.	Actual Times by Post-Office Watch).		P.O. work completed at (by P.O. Watch).		This Column to be left blank.
		H. M.	H. M.	H. M.	H. M.	
London and North-Western Railway.	To be despatched from the General Post-Office, the day of 1893, at					
	Ind. at { Watch No. Received safe by					
	Last Van arrived at Station .....at					
	Last Bag placed in Train at .....at					
	To leave the Railway Station ....at					
	Harrow (Apparatus).....(8 44)					
	Watford (Apparatus).....(8 58)					
	King's Langley (Apparatus) ... (8 55)					
	Boxmoor (Apparatus) .....(8 59)					
	Berkhamsted (Apparatus) .....(9 3)					
	Tring (Apparatus) .....(9 10)					
	Cheddington (Apparatus) .....(9 12)					
	Leighton Buzzard (Apparatus) (9 18)					
	Bletchley (Apparatus) .....(9 28)					
	Wolverton (Apparatus).....(9 38)					
	Blisworth (Apparatus) .....(9 47)					
	Weedon (Apparatus) .....(9 55)					
	To arrive at Rugby .....at					
	Off at					
	Nuneaton (Apparatus) .....(10 31)					
	Atherstone (Apparatus).....(10 37)					
	To arrive at Tamworth.....at					
	Off at					
	Lichfield (Apparatus) .....(11 0)					
	To arrive at Crewe .....at					
	Off at					
	Warrington (Apparatus).....(12 32)					
	Newton Bridge (Apparatus)....(12 37)					
	To arrive at Wigan .....at					
	Off at					
	To arrive at Preston .....at					
	Off at					
	Garstang (Apparatus) .....(1 33)					
	Lancaster (Apparatus) .....(1 46)					
	To arrive at Carnforth .....at					
Off at						
Miltonthorpe (Apparatus) .....(2 7)						
Oxenholme (Apparatus) .....(2 15)						
Low Gill (Apparatus) .....(2 28)						
Tebay (Apparatus) .....(2 34)						
Shap (Apparatus) .....(2 47)						
Penrith (Apparatus) .....(2 59)						
To arrive at the Railway Station, Carlisle, the day of 189 ,at						
{ Delivered the Watch safe to						
{ No.						
Signature of Sorter in charge	3 22					3 15

F. E. BAINES, Inspector-General of Mails.

*** See note on next page.

Special Night Mail—Week-day Working.

GENERAL POST-OFFICE.



The Right Honourable HENRY CECIL RAIKES, M.P., Postmaster-General.

Carlisle and Perth Railway TIME BILL.

Re- marks as to Delays, etc.		Proper Times.		Actual Times by Post- Office Watch.		Actual Times by Rail- way Clock.		P.O. work com- pleted at (by P.O. Watch).		This Column to be left blank.
		H.	M.	H.	M.	H.	M.	H.	M.	
	Despatched from the Railway Sta- tion, Carlisle , the day of 1891, at	A. M.								
	Mail from London arrived.....at	3	28							
	{ Watch, No.									
	{ Received safe by									
	Gretna (Apparatus) .....(3 38)									
	Ecclefechan (Apparatus).....(3 51)									
	Lockerbie (Apparatus).....(3 58)									
	Beattock (Apparatus) .....(4 14)									
	Abington (Apparatus) .....(4 39)									
	Lamington (Apparatus) .....(4 45)									
	Symington (Apparatus) .....(4 49)									
	Thankerton (Apparatus) .....(4 51)									
	To arrive at Carstairs Junc. ...at	4	55							
	Carlisle (Apparatus) .....(5 9)									
	Wishaw (Apparatus) .....(5 17)									
	Mossend (Apparatus) .....(5 32)									
	Coatbridge (Apparatus) .....(5 37)									
	Larbert (Apparatus) .....(5 56)									
	To arrive at Stirling.....at	6	7							
	Off at	6	12							
	Bridge of Allan (Apparatus) (6 16)									
	Dunblane (Apparatus).....(6 18)									
	Greenloaning (Apparatus) ... (6 26)									
	Blackford (Apparatus).....(6 31)									
	Crieff Junction (Apparatus) ..(6 33)									
	Auchterarder (Apparatus) ... (6 36)									
	To arrive at the Railway Station, Perth .....at	6	55							
		A. M.								
	{ Watch, No.									
	{ safe to									

F. E. BAINES, Inspector-General of Mails.

The Sorter in charge of this Time Bill must not omit to report on it :—1st. The cause of any Delay. 2nd. The failure of any Junction. 3rd. The discontinuance of any Stops included in the Bill, or the commencement of any additional Stops; any alteration in the Time allowed between the Stations, or in any Stations at which Bags are exchanged by Apparatus. He must enter all Remarks in the proper Column, and opposite or between the Stations to which they refer. If the Sorter in charge of the Time Bill is changed at any point on the Line, the Sorter who hands over the Bill must sign his Name at the point at which he ceases to have charge of it.

The Edinburgh Mail branches off at Carstairs, and the run between the two stations occupies forty minutes.

The Glasgow, Paisley, and Greenock Mail vans are also detached from the main train at Carstairs on the down journey, but regain it on the up journey at Holytown, under the subjoined time-bills.

GLASGOW, PAISLEY, AND GREENOCK MAILS.

GLASGOW TRAIN (DOWN).

	Proper Times.	Actual Times by Post-Office Watch.
	H. M.	H. M.
Special Mail from London arrived at Carstairs .....at	A.M. 4 55	
Train despatched from Carstairs .....at	5 10	
Train arrived at Motherwell .....at	5 31	
Train despatched from Motherwell .....at	5 32	
To arrive at the Railway Station, Glasgow ...at	5 52	
And arrive at Post-Office, Glasgow .....at	6 2	

PAISLEY AND GREENOCK TRAIN (DOWN).

	A.M.	
Down Special Mail to arrive .....at	5 52	
Off at	6 0	
To arrive at Paisley .....at	6 13	
„ Port-Glasgow .....at	6 32	
To arrive at the Railway Station, Greenock ...at	6 40	
Two minutes allowed. Off at	6 42	
To arrive at the Post-Office, Greenock .....at	6 47	

Special Night Mail—Week-day Working.

GENERAL POST-OFFICE.



The Right Hon. SIR JAMES FERGUSSON, Bart., M.P., Postmaster-General.

Perth and Aberdeen Railway TIME BILL.

Guard's Re- marks as to Delays, etc.	Proper Times.	Actual Times by Post- Office Watch.	Actual Times by Rail- way Clock.	P.O. work com- pleted at (by P.O. Watch).	This Column to be left blank.
Caledonian Railway.	To be despatched from the Post-Office, Perth , the				
	of 1892, at				
	To arrive at Railway Stn. .....at				
	The Mail from London arrived...at				
	{ Watch, No.				
	{ Received safe by				
	Last Bag placed in Train .....at				
	Off at				
	Coupar-Angus (Apparatus)...(7 19)				
	Alyth Junction (Apparatus) .(7 24)				
	Kirriemuir (Apparatus) .....(7 34)				
	To arrive at Forfar .....at				
	Off at				
	Guthrie Junction (Apparatus) (7 51)				
	Bridge of Dun (Apparatus)...(8 2)				
	[Now calls at 8 1.]				
	Dubton (Apparatus).....(8 6)				
	Laurencekirk (Apparatus) ... (8 18)				
	Fordoun (Apparatus) .....(8 23)				
	Stonehaven (Apparatus) .....(8 36)				
	[Now calls at 8 36.]				
	To arrive at the Railway Station, Aberdeen .....at				
	To arrive at the Post-Office, Aberdeen , the				
	of 189 , at				
	{ Watch, No.				
	{ safe to				

F. E. BAINES, Inspector-General of Mails.

THE RETURN JOURNEY.

ABERDEEN AND PERTH SECTION.

	Proper Times.	Actual Times by Post-Office Watch.
	H. M.	H. M.
To be despatched from the Post-Office, Aberdeen .....at	P. M.	
To arrive at Railway Station .....at		
Last Bag placed in Train .....at		
Off at	3 40	
Stonehaven (Apparatus) .....(4 4)		
Dubton (Apparatus) .....(4 33)		
Bridge of Dun (Apparatus) .....(4 37)		
Guthrie (Apparatus) .....(4 48)		
To arrive at Forfar .....at	4 57	
Off at	4 59	
To arrive at the Central Station, Perth .....at	5 39	

PERTH AND CARLISLE SECTION.

	Proper Times.	Actual Times by Post-Office Watch.
	H. M.	H. M.
Despatched from the Railway Station, Perth , at	P. M.	
Mail from Aberdeen arrived .....at	5 47	
Crieff Junction (Apparatus) .....(6 5)	5 40	
Dunblane (Apparatus) .....(6 17)		
Bridge of Allan (Apparatus) .....(6 20)		
To arrive at Stirling .....at	6 25	
Off at	6 27	
Greenhill (Apparatus) .....(6 41)		
Coatbridge (Apparatus) .....(7 0)		
To arrive at Holytown .....at	7 5	
Off at	7 22	
Wi-haw (Apparatus) .....(7 27)		
Carluke (Apparatus) .....(7 34)		
To arrive at Carstairs Junc. .....at	7 47	
Off at	7 49	
Lamington (Apparatus) .....(8 2)		
Arrived at the Railway Station, Carlisle .....at	9 14	
	P. M.	

GLASGOW, PAISLEY, AND GREENOCK MAILS.

GREENOCK AND PAISLEY TRAIN (UP).

	Proper Times.	Actual Times by Post-Office Watch.
	H. M.	H. M.
To be despatched from the Post-Office, Greenock.....at	P.M. 5 45	
To arrive at Railway Station .....at	5 50	
Off at	5 57	
To leave Port-Glasgow .....at	6 3	
„ Paisley .....at	6 22	
To arrive at the Central Railway Station, Glas- gow .....at	6 38	
Off at	6 40	
To arrive at the Post-Office, Glasgow .....at	6 45	

GLASGOW TRAIN (UP).

	P.M.
Despatched from the Post-Office, Glasgow ...at	6 43
Arrived at Railway Station .....at	6 48
Last Bag placed in train.....at	6 52
Off at	6 55
{ Watch, No. { Received safe by	
Arrived at Holytown .....at	7 15
Train from the North arrived .....at	7 5
Train for London to leave .....at	7 22

Note.—The Sunday working in some cases differs slightly from the week-day working.

CARLISLE, PRESTON AND LONDON SECTION.

	Proper Times.	Actual Times by Post-Office Watch.
	H. M.	H. M.
	P.M.	
Aberdeen Mail arrived at	9 14	
Last Bag in Train at		
To be despatched from the Railway Station, Carlisle at	9 22	
Penrith (Apparatus).....(9 49)		
Oxenholme (Apparatus) (Sunday only)... (10 23)		
To arrive at Carnforth.....at	10 44	
Off at	10 47	
Lancaster (Apparatus) .....(10 57)		
To arrive at Preston .....at	11 21	
Off at	11 25	
„ Wigan .....at	11 46	
Off at	11 49	
	A.M.	
To arrive at Crewe .....at	12 34	
Off at	12 41	
„ Stafford.....at	1 13	
Off at	1 19	
Lichfield (Apparatus) .....(1 39)		
To arrive at Tamworth .....at	1 48	
Off at	1 52	
Atherstone (Apparatus) .....(2 1)		
Nuneaton (Apparatus) .....(2 7)		
To arrive at Rugby .....at	2 26	
Off at	2 30	
Weedon (Apparatus) .....(2 45)		
Blisworth (Apparatus).....(2 53)		
Wolverton (Apparatus) .....(3 7)		
To arrive at Bletchley .....at	3 15	
Off at	3 18	
Leighton Buzzard (Apparatus) ... ..(3 26)		
Tring (Apparatus) .....(3 37)		
Berkhamsted (Apparatus) .....(3 42)		
Boxmoor (Apparatus) .....(3 46)		
King's Langley (Apparatus) .....(3 51)		
Watford (Apparatus) .....(3 55)		
Harrow (Apparatus).....(4 2)		
To arrive at the Railway Station, Euston		
Square .....at	4 16	

The Bags to be transferred to the Vans as quickly as possible, and each Van to start the moment it is loaded. The time occupied by each Van in reaching the General Post-Office not to exceed eighteen minutes from the time of starting.

APPENDIX I.

H.M.S. *Himalaya* AND THE CONTRACT MAIL-PACKET *Campania*.

Since writing at page 233 on the subject of the troopship *Himalaya*, the following paragraph has appeared in the *Standard* of September 7, 1894 :

‘An order was received at Devonport yesterday to pay off the troopship *Himalaya*, and place her in the E Division of the dockyard reserve, thus practically removing her from the effective list of the navy. The *Himalaya* is by far the oldest vessel on the effective list. She was built in 1853 by Messrs. Mare and Co., of Blackwall, for the Peninsula and Oriental Steamship Company ; but in July, 1854, the Admiralty, being anxious to secure a suitable vessel for the conveyance of troops to the Crimea, purchased her for £130,000. Since then she has been continuously employed as an imperial troopship.’

The following paragraph referring to the arrival of the *Campania* on August 1, 1894, has also appeared in the public press :

‘The Cunard liner *Campania*, which arrived at Queenstown at 5.34 a.m. on Friday, has made a record eastward passage of 5 days 10 h. 47 min. She lost nearly three hours by having to slow down in fogs.’

This passage eclipsed the *Lucania*’s homeward run (p. 183, ii.) of 5 d. 13½ h. and the *Campania*’s own performance (p. 187, ii.) of 5 d. 12 h. 7 m. on an outward voyage.

APPENDIX J.

Opinion of the Corporation of the City of Liverpool concerning the results of penny postage, after fifty-four years’ experience of its operation, as conveyed in an address to their Royal Highnesses the Duke and Duchess of York, on the occasion of the royal visit, September 10th and 11th, 1894, to lay the first stone of the new post-office :

‘The presentation of the Corporation address was the first item in the programme. The address, which was read by the Recorder, Mr. Hopwood, Q.C., expressed the gratification of the Council that the presence of their royal guests should be connected with the laying of the foundation-stone of a new post-office, the erection of which was destined to supply a great and growing want in the city. The earlier part of the Queen’s reign was signalized by a reform of surpassing importance, resulting in an extension of the facilities of postal intercourse, which, by uniting in peaceful and powerful bonds the nations of the world, had enlarged the scope of that commercial enterprise upon which the prosperity and well-being of all communities so largely depended.’—*Standard*.

APPENDIX K.

COAST COMMUNICATION.

There can hardly be a better illustration of the uses which the scheme set forth at pp. 310-314 was designed to meet than is given in the subjoined paragraph taken from the columns of the *Bournemouth and East Dorset Advertiser* of September 29, 1894 :

‘AN ATLANTIC LINER ASHORE.—The Hamburg-American Steamship Company's steamer *Steinhöft* went ashore on the coast of Devon early on Saturday morning. The *Steinhöft* is a vessel of 1,809 tons register, and carried 107 passengers, 42 crew, and a general cargo, and ran ashore on a sandy beach half a mile eastward of Torcross. Had the vessel gone on the rocks her fate would have been sealed. The coast-guard promptly sighted her. Unfortunately, the Torcross and other coastguard stations are not connected by wire with Plymouth, or any other telegraph station which is always open, and thus a horse had to be procured and a messenger despatched to gallop ten miles in the darkness to Dartmouth, whence a steam-tug was despatched. The *Steinhöft* was, with the aid of the tug, got off about 10 o'clock, having been fast about seven hours.’

APPENDIX L.

ERRATA.

VOLUME I.

Page 3, line 10,	for 'thirties' read 'twenties.'
" 20, " 30, "	'St. John's Street' read 'St. John Street.'
" 72, " 1, "	'has' " 'had.'
" 94, " 3, after	'by' insert 'a.'
" 99, " 12, for	'Georgemass' read 'Georgemas.'
" 113, " 17, "	'very' " 'was.'
" 146, " 23, "	'William' " 'Thomas.'
" 186, " 27, "	'the' " 'thy.'
" 225, " 7, "	'of' " 'for.'
" 261, " 13, "	'sixties' " 'thirties.'
" 313, " 14, "	'Maberley' " 'F. H. Maberly.'
" " 15, "	'nephew' " 'cousin.'
" 320, " 19, "	'are' " 'is.'
" " 20, "	'multiplied' " 'increased.'

VOLUME II.

Page 23, line 22,	for 'London' read 'London and.'
" 84, " 29, "	'distributer' " 'distributor.'
" 120, lines 3 and 4,	read 'mails between Inverness and the south
	had to be,' etc.
" 141, line 28, for	'Cresswell' read 'Creswell.'
" 174, " 22, "	'F.H.' " 'F.M.'
" 257, footnote, "	'Hillyers' " 'Hillyars.'
" 273, line 15, "	'She' " 'It.'

NOTE AS TO THE AMERICAN MAILS.

WHILE it is, perhaps, yet too early to expect that under any new plan for accelerating the night-mail to Dublin the forecast ventured upon in these pages of an express service westward of Crewe will be realized, it is highly interesting to learn that such a service will actually be brought into play with the American mail despatched from London on Saturday. In lieu of a despatch from London at 8 p.m., the mail (Saturday being a half-holiday, and business ceasing earlier than on other days) will be sent off at 4 o'clock, and on reaching Chester will be conveyed by express—i.e., by special means—thence to Queens-town, where it will be due to arrive at about 7 a.m., instead of about 11 o'clock. This will admit of the Cunard mail steamer being despatched from Queenstown to New York soon after 8 a.m. The improvement is of great importance, as it will proportionately influence the time of arrival in New York, and frequently secure the despatch thence of correspondence for the interior by an earlier inland mail than would otherwise be practicable.

NOTE AS TO THE INDIAN MAILS.

THERE is yet another rapid passage to record of the homeward Indian mail. The correspondence which left Bombay at 1 p.m. on Saturday, November 3, 1894, by the contract packet *Caledonia*, the latest addition to the Peninsular and Oriental Company's fleet, reached the General Post-Office, at 3.45 a.m. on Friday, the 16th, thus accomplishing the transit in 12 days 14½ hours, and so eclipsing even the wonderful performances of the *Himalaya*. The letters were distributed all over London by the first morning delivery, so that the Metropolis and its suburbs had practically the whole day for the preparation of replies for the outgoing Indian mail of the same night.

APPENDIX M.

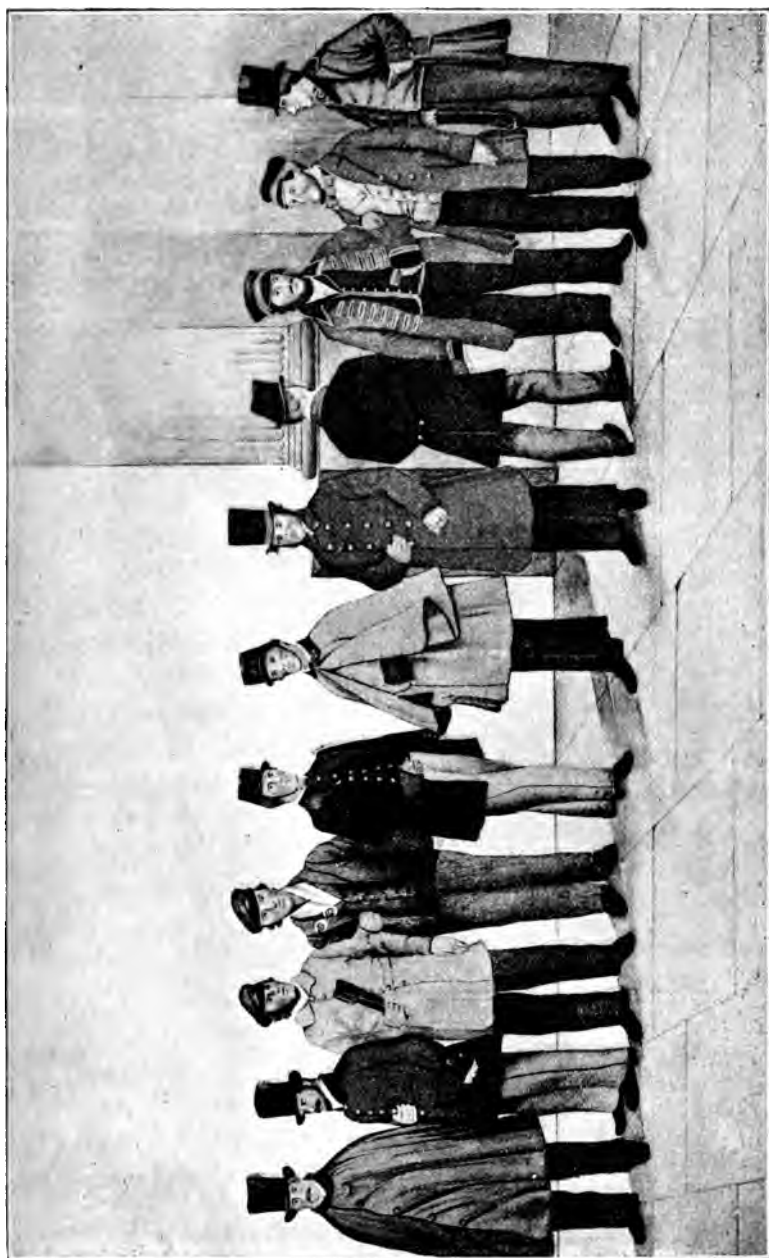
UNIFORMS IN THE SIXTIES.

THIRTY or forty years ago, when photography, especially in the hands of amateurs, had but a limited range, and when one well-known photographic enterprise in the City was receiving its first impetus from a talented postal official, a sorter of the Inland branch, Mr. Hawkins, tried his 'prentice hand on uniforms as then worn by mail-guards, postmen, and other members of the minor establishment.

The result of his effort, which now begins to have a historical value, is shown in the annexed illustration, taken from the Jubilee Book of 1890. It may be worth mentioning that, whatever the cause—restricted size of the sensitive plates or technical difficulties insuperable to a tyro—each photograph had to be taken in two parts.

Regarding the figures in succession from left to right, No. 1 represents a postman of the period of my entering the Post-Office—1855—bearing the stalwart name of Redoubt. A cloud of uncertainty, however, enshrouds the nether garments of Postman Collins (No. 2) and Postman Pike (No. 5); unofficial trousers are believed to have taken the place of those of the orthodox pattern of 1861. In No. 6 Mr. Pike reappears, this time faultlessly equipped. In fact, he seems ubiquitous, posing as a postman also in Nos. 8 and 11. Litchfield, the porter, shows himself in two attires—Nos. 3 and 4; while the hall-keeper, Partington (No. 7), the hall-messenger, Cowan (No. 10), and the mail-guard (No. 9), whose name I cannot trace, complete the group.





POST-OFFICE UNIFORMS, 1855 TO 1861.



INDEX.

-
- ABBOTT, F.**, 257
'Abstract' India mail-express, ii. 238-240
Accelerated Continental mail-express, ii. 206
Accidents to coaches :
 Exeter, 40, 41
 Quicksilver, 46
 Aberystwyth, 52-54
 Brighton (parcel), ii. 151, 152
 Oxford (parcel), ii. 152, 153
 Chelmsford (parcel), ii. 153
 Ditto on railways, 199 ; ii. 120, 121, 195
 Fall of Llandulas Viaduct, ii. 121-123
Accounts :
 Principle of, 245-247
 Daily, 246
 (See also *Finance*)
Acquisition of the telegraphs. See *Transfer*, &c.
Admiralty, 70, 151, 152, 324, 325 ; ii. 224, 235, 248, 263, 272
African Line, ii. 177
Agreements (Parcel Post), ii. 165, 167, 177
Aitken, G. A., ii. 205, 207, 292
Ali, Mehemet, ii. 226, 242
Allan, James, ii. 243
Allan, T., ii. 4
Allen, John, ii. 142
American mail, ii. 182-189, 214, 215
Anderson, Anderson and Co., Messrs., ii. 277
Anderson, R. O., ii. 142, 214
Anderson, Sir James, 334-336
Anderson and Willcox, Messrs., ii. 224, 243
Andrews, W., ii. 7, 9
Angell, Captain, 264, 265
Anomalies of postage, 115, 117 ; ii. 161
Appendices, ii. 299
Arbitration, 294, 295
Archer, H., 124-127
Ardron, John, ii. 22
Argyll, Duke of, 216, 217 ; ii. 190
Ash Neville, ii. 207
Ashburton, Lord, 105, 114
Ashurst, W. H., 274, 275 ; ii. 35
Atlantic cables, Varley's method, ii. 99, 100
Australia, ii. 257
 Letters sixty years ago, ii. 258
 For outlying parts, ii. 261
 Still few in 1845, ii. 265
 At present, ii. 265
 Fortnightly mail, ii. 276, 277
 Weekly mail, ii. 265, 277
 Postal commission (1836), ii. 262, 263
 Sailing packets, ii. 263, 264, 266
 Steam demanded, ii. 266-268
 Rival routes, ii. 269-271
 Commerce in 1865, ii. 276
 Select committee, ii. 276

B.
Badcock, J. C., 196 ; ii. 141, 207

Bags :

- (Mail) stolen, 5
- Bye-bags, 7
- Supply at G.P.O., 187
- Carlisle mail, burnt, 198
- Supplementary mail, ii. 210
- Relief, ii. 211-213
- Baillie-Gage, T., 289, 290
- Baines, Sir Edward, 136
- Baines, James, and Co., ii. 273
- Balaklava, 263
- Banning, C. B. G., 120
- Banning, W., 120
- Barclay, Captain, 43
- Baring, Sir F., 121
- Barlow, T., ii. 30
- Barnard, W. W., ii. 142
- Barnes, F. D., ii. 244
- Barnet, 2-5, 7, 9-11, 15, 16, 18, 112
 - Battle of, 3
 - Green Man, 15, 16
 - Coaches through, Appendix A.
- Barrow, Sir John, 324
- Bartholomew, Mr., ii. 14
- Bass, G., ii. 259
- Bath, 34
 - Road, 3, 31-33, 39, 58
- Batman, John, ii. 260
- Battery, principle of, ii. 59, 60
- Bayley, H., ii. 244
- Bayly, R., 313
- Beaufort, Duke of, K G., 16
- Beaufort, J. L. St. John, ii. 134, 141
- Bedford Times, 15
- Belgium, ii. 167, 168
- Bell, Sir F. D., ii. 170
- Bell, John, and Co., a compliment, ii. 138
- Bennett, C., ii. 158, 253
- Bennett, Samuel, 268, 269
- Benthall, A., 30, 172 ; ii. 163
- Berry, Sir Graham, ii. 171
- Bianconi, Charles, 87-91
- Binger, J. O., 73
- Birmingham, 22-26 ; ii. 16, 106-108
- Blackwood, Sir Stevenson Arthur, K.C.B. :
 - Personal sketch, 175-180
 - Service in Crimea, 175
 - At Treasury, 175

Blackwood, Sir Stevenson Arthur, K C.B.—continued

- Financial (1874) and chief secretary (1880), 175
- Mildmay Conference, 175
- Genial character and sterling worth, 179
- Temperance advocate, 178
- Article by Mr. Forman, 179
- Prolonged illness, 177
- Death at Harwich, 177
- Blaise Castle, 239
- Bokenham, W., 117, 166, 172
- Bombay, ii. 225-227
 - Frigates, ii. 232, 233
 - Swift mails, ii. 234
- Book-post, 141
- Boucher, T., 172
- Bourke, Sir R., ii. 260
- Bourne, Captain, R.N., 76 ; ii. 224
- Bourne, F., 76
- Bournemouth mails, 205, 206
- Boy messengers, 232, 233 ; ii. 20
- Boys, C. V., 158
- 'Breakers ahead !' 82, 83
- Brett, Jacob, ii. 89, 91
- Brett, J. Watkins, ii. 89, 91
- Brett and Little, Messrs., 318
- Bright, Sir Charles, 336, 337 ; ii. 9
- Bright, E. B., ii. 9, 59
- Brighton Road, 33, 34
 - Coach, ii. 145
 - (See also *Parcel-Coaches*.)
- Bristol, 34-36
 - Penny post, 36, 115
 - Post-Office, past and present, 36, 37
- Britannia Tubular Bridge, 69
- Brooke, Sir C., ii. 51
- Bruce, Robert, ii. 207
- Brunel, I. K., 73 ; ii. 127
- Buildings Branch, ii. 133
- Bull and Mouth, ii. 74
- Burdett-Coutts, Lady, ii. 292
- Burns, Sir George, Bart., ii. 221
- Burns, Sir Johu, Bart., 312 ; ii. 220, 221
- Byford, S., 17

- C.
Cables (submarine) :
 To South Africa, 307
 Holyhead and Howth, ii. 32
 Transferred to State, ii. 80
 England to France and Belgium, ii. 89, 90, 92
 Spiral sheathing, ii. 91, 92
 Longest Post-Office cable, ii. 96
 Atlantic cable recovered, 335, 336
 Atlantic lines, ii. 99, 100
 Electrical resistance, ii. 100
 Speed, ii. 101
 Pattern cable, ii. 102
 (See also *Submarine Telegraphs*.)
 Caillard, Alfred, C.M.G., ii. 166
 Calcutta, ii. 230-232
 Passage money, 241
Campania, Appendix I.
 Canning, Earl, 133, 163-167, 215, 216
 Caoutchouc as a dielectric, ii. 51
 Cape of Good Hope :
 Colonial telegraphs, 307, 308
 Mail-service, ii. 162, 177, 178
 Capern, Edward, 269
 Cardin, J. J., 247
 Carlisle mail-coach, 9, 11, 25, 95, 96
 Sorting road, 191
 Carmichael, Sir J., Bart., ii. 91
 Carrick, Sir J., ii. 171
 Carter and Co., Messrs., ii. 139
 Castle Line, ii. 178, 179
 Cavendish, Lord Frederick, 236
 Cay, John, 290
 Central Telegraph Station (IK, LY and TS) :
 Instrument galleries, 147, 148, 151 ; ii. 76, 77
 'Code-room,' 148
 London circuits concentrated at LY, ii. 9
 Controller, ii. 30, 31, 77, 85
 Staff of, ii. 77
 Matron's desk, ii. 30, 31
 The new telegraph station, ii. 35-37
 Central Telegraph Station (IK, LY and TS)—*continued*
 Battery-room, ii. 74
 Tube-room, ii. 75
 Messages in transit, ii. 78
 Circuits at work, ii. 78
 Continental gallery (TSF), ii. 79
 Foreign circuits, ii. 80
 Test-box, ii. 83, 84
 Afternoon tea, ii. 85
 (See also *St. Martin's le-Grand and Telegraph Instruments*)
 Chadwick, Mr., ii., 173
 Challice, W. B., ii. 207
 Chambré, Alan E., ii. 22, 31, 207
 Chaplin, W., 32, 33, 55, 57
 Charges for letters. See *Postage*
 For telegrams, 300, 327-329
 Chatfield, Admiral, ii. 256
 Chatterton, Mr., ii. 91
 Chetwynd, G., 180-182, 247, 248 ; ii. 14, 35
 Chichester, Earl of, ii. 106
 Child, Mrs., 18, 19
 Childers, Rt. Hon. H. E. C., M.P., 81
 China posts, ii. 262
 Christmas pressure :
 Mount Pleasant, ii. 140
 Crewe Junction, ii. 140
 Parcel-coaches, ii. 154
 India and Australia mails, ii. 182
 Chronofer, ii. 83
 Circulation of telegrams, ii. 26, 68, 72, 73
 City Corporation, ii. 289
 City of Dublin Steam Packet Co., 65, 66, 70, 73, 79
 Clark, Edwin, 333, 334 ; ii. 53
 Clark, Latimer, ii. 53
 Clearing House, Railway, ii. 195
 Clerk-in-waiting, 167
 Coaches, fast trips, 27. (See also *Scotch coaches, Irish coaches, Mail-coaches, Parcel-coaches, Stage-coaches* ; also *Appendices A, B, C, D, E, F, and G.*)
 Coast communication, 310-314 ; ii. 327

- Cobden, Richard, M.P., 114-117
 Cochery, Mons., ii. 161
 Code-room, 148; code-book, ii. 84
 Codes :
 Wishaw's, 148-151
 IK, ZM, CW, PQ, LY, etc., 148-151
 Morse signs, ii. 9, 79, 87, 98
 ' Coffin ' ships, ii. 248
 Colchester, Lord, 79, 217
 Cold Bath Fields Prison, 292; ii. 136. (See also *Mount Pleasant*)
 Coleman, Mr., ii. 107
 Collinge's axles, 56
 Colonies, Posts to. See *Foreign and Colonial Branch*
 Commercial sales rooms, ii. 77, 78
 Confidential Enquiry Branch, 283
 Congresses at Paris, ii. 159-163; at Berne, ii. 160-161
 Contract Packets :
 Foreign and Colonial Service. See *African, Castle, Cunard, Orient, Pacific, P. and O., Royal Mail, Union, and White Star Lines*
 Home Service :
 Ireland, 70-73, 80, 81, 86
 Holyhead and Kingstown, 185; ii. 219-221
 Arran, Western Islands, Shetland Islands, ii. 220
 Southampton, Weymouth and Channel Islands, ii. 220, 221
 Belfast and Larne, 185; ii. 221
 Contracts with Railway Companies, ii. 208, 209
 Controllers :
 London Postal Service, 196
 Packets, 243
 Savings Bank, 249
 TS, ii. 77
 Convention with France (1839), ii. 233
 Conventions (Parcel Post), ii. 165, 167, 177
 Cooke, A. B., ii. 23
 Cooke, Sir W. F., 142, 321, 322
 Cooper's MS., ii. 137
 Cornell, Ezra, 330
 Courtney, Rt. Hon. Leonard, M.P., 81
 Cowper, E. A., C.E., 138
 Crampton, Mr., ii. 92
 Cranbrook, Lord, ii. 290
 Creswell, G. H., 30, 49, 277
 Creswell, H. L., 30; ii. 141
 Creswell, Miss, ii. 166, 167
 Crewe Junction :
 Christmas, ii. 140
 Mail trains, ii. 198, 199, 205
 Crimean War, ii. 123, 240
 Croll, Mr., ii. 7
 Cross posts, 204, 205; ii. 199, 200
 Crown Colony posts, ii. 262
 Culley, R. S., ii. 9, 55
 Cunard, Sir Samuel, Bart., ii. 181-183
 Cunard Line, ii. 181-184, 186, 187, 214
 Cunyngname, A. M., 257; ii. 142
 Currie, Sir Donald, K.C.M.G., M.P., ii. 179
 Curtoys, C., ii. 9
 Custom House :
 Mount Pleasant, ii. 140
 Cordiality, ii. 141
 Parcels from abroad, ii. 176

 D.
 Dargan, Mr., 87
 Date stamping, 136
 Dawson, F. W., ii. 196
 Day-coaches, Appendix F.
 Definition of letters, 270, 271
 Delay of telegrams, 301; ii. 40, 41
 Denbigh Hall, 25, 26
 Denman, A., ii. 34
 Departmental committees, 294
 Derby, Earl of, 303-307
 Devonport mail-coaches, 39, 40; Appendix C.
 Dickens' experience, ii. 184
 Discipline, 193, 242
 D'Israeli, Right Hon. Benjamin (Lord Beaconsfield), 220
 Docwra, Mr., 115
 Dot-and-dash system. (See *Codes*)
 Doulton, Sir H., 240

Dover packets to Calais, etc., ii. 189
 Dyke, Rt. Hon. Sir W. H., ii. 290

E.

East India Co. :
 Steamers to India, ii. 225, 232, 236
 Egyptian transit, ii. 232, 233
 Eaton, H., ii. 36
 Eden, Hon. Emily, ii. 230-232
 Edinburgh, 7, 102
 Mail-coaches, 92-94, 96
 Chamber of Commerce, ii. 4
 Duke and Duchess of, ii. 290, 291
 Election (General), former plan of reporting, ii. 41-42
 Electric Telegraph Cos., 143-144, 147, 159 ; ii. 6, 9, 10, 23
 Electrical Engineers' Society, ii. 50
 Electrician, The, 256
 Elgin, Earl of, 211, 217
 Elliot and Glass, Messrs., ii. 92
 Emly, Lord, 218
 Engineer-in-Chief, 256 ; ii. 44, 45, 49
 Staff of, ii. 48
 Engineer (Superintending), ii. 45
 Engineering Branch, ii. 44
 Errors in telegrams, ii. 85, 86
 Escapes from Railway Accidents, ii. 194, 195
 Eruria's larder, ii. 182
 Exeter and mail-coaches, 37-49 ;
 Appendix D.
 Road, 32, 37

F.

Falmouth mail-coaches, 39, 40
 Packet station, ii. 179, 224, 232, 248-250
 Fanshawe, Mr., ii. 166
 Faulkner, Mr., ii. 238, 239
 Fawcett, Rt. Hon. Henry, M.P., 81
 Postage & tax, 105
 Popularity, 211, 215
 Appointment, 218
 Illnesses, 218, 237
 Personal sketch, 234-240
 Telephones, 315
 Parcel Post, ii. 128, 129, 133, 134, 141, 163, 164, 168

Fawcett, Rt. Hon. Henry, M.P.—
continued
 Accelerated Mails, ii. 201, 204, 205

Fawkner, J. Pascoe, ii. 260
 Fergusson, Rt. Hon. Sir James, Bart., M.P., 230, 231
 Field, Cyrus, 334
 Finance, 234, 244 ; ii. 37, 38, 46, 76. (See also *Accounts*.)
 Findlay, Sir George, i. 123, 196, 203, 204
 Fischer, H. C., ii. 30, 36, 77
 Fitzgerald, Governor, ii. 267, 268
 Footner, H., ii. 122
 Foreign and Colonial Branch, ii. 155, 156
 Colonial posts relinquished, ii. 158, 159
 Cape Service, ii. 162
 American packets, new principle of payment, ii. 162
 Civil Controller, ii. 177
 Naval Adviser, ii. 177
 Re-transfer of packet-service, ii. 179, 180
 (See also *Contract Packets and Money Orders*.)
 Forman, H. Buxton, 179 ; ii. 163, 164
 France, ii. 168, 172, 176
 Franco-German War, ii. 123-125
 Franking privilege :
 Letters, 109, 119, 120, 123
 Telegrams, ii. 27, 28
 Fraser, G., ii. 115-118
 Freeling, Sir Francis, Bart., 27, 107, 110, 135, 163 ; ii. 128, 179
 Freeling, G. H., ii. 179
 French, S. R., ii. 22, 167
 Frost in 1813-14, ii. 105-107
 Froude, J. A., 306, 307

G.

Galton, Capt., ii. 4
 Gardiner, J. E., ii. 108.
 Gas, 165
 Gates, W. G., ii. 207
 Gauges, battle of, ii. 127
 Gavey, J., ii. 48
 Gavin, Dr. H., 250
 General Post-Office, 20, 164. (See also *St. Martin's-le-Grand*)

- General Postal Union, ii. 161
 Germany, ii. 160, 167, 168
 Gibbs, Bright and Co., Messrs., ii. 273
 Gintt, Herr, 320
 Gipps, Sir George, ii. 263
 Gladstone, Murray, ii. 241, 242
 Gladstone, Rt. Hon. W. E., M.P., 245, 248; ii. 228, 266, 268
 Glass and Elliot, Messrs., ii. 92
 Godby, W. J., 172-174, 233; ii. 141
 Godby, A., 173
 Godby, W. H., 174
 Gold Discoveries, ii. 274
 Goschen, Rt. Hon. G. J., M.P., ii. 285
 Gould, John, ii. 108
 Government Annuities Act, 292
 Grand Junction Railway, 22, 23, 26, 68, 197; ii. 217-219
 Graves, Edward, 295; ii. 33
 Great Eastern steamship, 321, 334-336
 Great Eastern Railway, block on, ii. 113
 Great North Road, 1-28
 Great Northern Railway, 101
 Great Western Railway :
 Opening, 57
 Block on, ii. 113
 Broad Gauge abolished, ii. 126, 127
 Green, F. and Co., ii. 277
 Grey, Earl, ii. 267, 268
 Grey, Sir G., ii. 268
 Grierson, J., ii. 196
 Griffin, W. H., ii. 171
 Griffith, Sir B., ii. 174
 Grimston, Hon. R., ii.
 Grimthorpe, Lord, ii. 6
 Guinness, R., ii. 141
 Gutta-percha, ii. 51-53, 89, 91
- H.
- Hadley, 3, 19
 Highstone, 3, 9, 10, 19
 Hall, Major Byng, 49
 Halton Pasha, ii. 166
 Harcourt, Rt. Hon. William Vernon, M.P., ii. 6
- Hardwick, Lord, 167
 Hardy, G., 299
 Harrington, N. H., 262, 263; ii. 224
 Harris, Stanley, 6, 102
 Harrison, F., ii. 122
 Harrison, Sir G., ii. 4
 Harrison, T. E., C.E., ii. 122, 216
 Hartington, Marquis of, M.P. (Duke of Devonshire), 215-217, 233; ii. 6
 Hasker, Thomas, ii. 106
 Hay, Mr., 324
 Hay, E. H., 324
 Health of P.O. staff, 251, 252
 Heaviside, A. W., 315
 Henty, Edward, ii. 259
 Hicke's Hall, 20, 21
 Hide, Mr., 247
 Highland coaches :
 Kingussie, 101
 Thurso, 99, 100
 Highland mail train, ii. 211
 Highland Railways, block on, ii. 119
 Highton, Mr., 318
 Hill, Dr. Birkbeck, 121
 Hill, Edwin, 124
 Hill, Frederic, 56, 143, 322; ii. 105, 106
 Assistant-Sec., 163, 164
 Anecdotes, 167, 168, 212
 Foreign postage, etc., 180; ii. 159
 Postal orders, 182
 Paris conference, ii. 160
 Packet service, ii. 180
 Hill, Lewin, 180; ii. 282
 Hill, Pearson, 136
 Hill, Sir Rowland. K.C.B., 60, 101, 123, 124, 135, 136, 163, 167, 200, 207
 In 1835, 104
 Pamphlet, 105
 Mastery of statistics, 110-120
 Franking privilege, 119
 Hard fighting, 120
 Life, 121
 Perforated stamps, 126, 127
 At Treasury, 129
 An ideal Secretary, 129, 174

Hill, Sir Rowland, K C.B.—
continued

- Difficulties of divided authority, 130
- Smooth waters, 131, 140
- Terms of appointment, 132, 133
- Volunteer movement, 136
- Tubular conveyance, 136, 137
- Newspaper postage, 139
- A dispute, 213, 214
- Parcel post, ii. 128, 129
- Argument with R. Stephenson, ii. 191
- Railway work, ii. 196, 197
- Limited mail, ii. 200
- Waghorn, ii. 227, 228
- Tributes to eminence, ii. 282-286
- Honours and testimonials, 140, 141
- Death, 140
- Hill, Sarah, 104
- Hill, Thomas Wright, 104, 121
- Himalaya* of 1854, Appendix I.
- Hindmarsh, Capt., R. N., ii. 261
- Hodgson, F. M., C.M.G., ii. 22, 174
- Höhn, Herr, ii. 160
- Holyhead :
 - Skerries lighthouse, 61
 - Breakwater, 69
 - Average passage to Dublin, 62, 64
- Holyhead mail :
 - Coach, 10
 - Train, 79 ; ii. 211
 - Interruption of line, 120-123
- Home mails branch, 299 ; ii. 142, 206, 207
- Hookey, J., ii. 48
- Horses (mail coach), 32, 33, 49, 50, 99-101
- Horse owners, 55, 57
- Hounslow, 31-33
- Howth Harbour, 60, 63, 64
- Hughes' telegraph, ii. 10, 63, 101
- Huish, Capt., 73
- Hume and Hovell, Messrs., ii. 259
- Hungarian*, loss of, ii. 180
- Hunt, Rt. Hon. George Ward, M.P., ii. 5, 6
- Hunter, Sir Robert :
 - H. Fawcett's Life, 238

Hunter, Sir Robert—*continued*

- Open Spaces Preservation, 243
- Solicitor of P.O., 276
- Services, 291-295
- Hunter, T., 260, 261
- Hurricane in Tortola, ii. 253, 254
- Huskisson, Mr., M.P., ii. 193
- Hyde, J. W., 139 ; ii. 23, 34
- I.
- Improvements in 1832, 27, 28
- Mail apparatus, 201
- Telegraph processes, ii. 50-53
- India :
 - Parcels and post-office, ii. 165, 166
 - Early posts, ii. 230-232
 - Overland mail, ii. 245-247
 - (See also *Bombay*)
- Indo-European telegraph, ii. 88
- Inland Office (circulation office), 165, 166
- Inspector-General of Mails, 30, 243
- Insurance, 221
- International Parcel Post Convention, ii. 163-165
- Irish coaches :
 - Fastest (Limerick) mail, 74
 - Longest ride, 75
 - Payment, 76
 - Average speed, 77
 - End of, 79
- Irish mail-service (from England):
 - Early condition, 61
 - Channel passages, 61, 62, 85, 86
 - Earliest steamers, 62, 63
 - State in 1834, 64
 - Punctuality striven after, 65
 - Time-table in 1836, 66, 67
 - In 1893, 84
 - At Crewe, ii. 198, 199
 - New contracts, 70, 71
 - Improvements, 73, 79, 81, 82 ; ii. 201
 - Cost, 82
 - A forecast, 86
- Ditto (inland services), 85 ; ii. 201, 207
- Irish mail-steamers. See *Contract Packets*

Irish telegraphs :

Reorganization, ii. 32, 33
 Railway wires, ii. 33

J.

Jackson, F. R., 164
 James, H. E. M., ii. 165, 166
 James, Sir Henry, Q.C., M.P., 291
 James, Mr. (Glasgow), ii. 263
 James, Percy, ii. 207
 Jaunting-cars, 88, 89
 Jeffery, T., ii. 141, 164
 Jenkin, Fleming, Prof., ii. 14
 Jenkins, Capt., R.N., ii. 181
 Jerrold, Douglas, 171
 Jimenez, Don José, ii. 175
 Jocelyn, Lord, ii. 272
 Johnson, C., 9, 29
 Johnston, R. W., ii., 22
 Joyce, Herbert, C. B., 180
 Jubilee of penny postage, 52
 Committee, ii. 281, 282
 Dinner, ii. 282-285
 Guildhall demonstration, ii. 286-289
 Special postcard, ii. 289
 Pretended Edinboro' coach, ii. 287-289
 Conversazione at S. Kensington, ii. 290, 291
 Special envelope, ii. 292
 Jubilee book, ii. 293

K.

Kains, John, ii. 157
 Kasson, Mr., ii. 159, 160
 Kelvin, Lord, ii. 66
 Kemp's Gazette, ii. 138
 Kempt, Irvine, ii. 203
 Keogh, T., 125, 126
 Killingly, Mr., 43
 Kingsley, Henry, ii. 257
 Kingstown, 64, 65, 70-74, 79-83 ;
 ii. 187, 188, 201, 221
 Quick run to, 86
 Knight, J. P., ii. 196

L.

Lacy, Mr., 55
 Lady doctors, 251
 Laird, John, 73

Lake, W., 43, 45

Lamb, J. C., C.M.G., 180 ; ii. 22

Lambert, J. P., ii. 122

Lamps :

On mail-coaches, 55

On parcel ditto, ii. 148, 149

Lang, C. D., 249

Lardner, Dr. D., 105

Leakage, electrical, 326

Leal, J., 260

Lecount, Lieut., R.N., 202

Leeds P.O., 260

Leeman, G., M.P., ii. 6

Lees, Sir E., 112

Lefevre, Rt. Hon. G. J. Shaw, M.P.,
 218-223, 225

New offices, 219

New mails, 219

Parcel post, 219

A great measure, 221

Schemes, ii. 206

Lefevre, Sir J., K.C.B., 322

Letters :

Double, 108

Multiple, 108, 109

Unpaid, 115, 122

Paid, 123

Examples of circulation, 185,
 195

Night mail, 192

Sorted in T.P.O.'s, 202

Undelivered, 253, 282, 283

Returned, 255, 256

Leeds and Newcastle, 260,
 261

Definition of, 270, 271

Missing, 283-287

Sent to U.S.A., ii. 186

Ship letters, ii. 264, 277

(See also *Postage*.)

Lewis, Dr. W., 250, 251

Lichfield, Earl of, 27, 28, 58, 109-
 111 ; ii. 128

Lidderdale, Rt. Hon. W., ii. 292

Limerick mail-coach, 74

Limited night-mail train, 74, 184,
 185 ; ii. 200, 202, 211

Lineman, ii. 44, 45

Lioness, attack by, 45

Little, Mr., 318

- Liverpool mail-coach, 8
 Parcel coach, ii. 151
 Railway from London, 68
 Lloyd, J. M., ii. 256
 Lloyd, Jones (Lord Overstone), 114
 Lombard Street, 163
 London and N.-W.R., 101
 London and S.-W.R., block on, ii. 114
 London Postal Service :
 District system, 187-189
 Controller, 196, 243
 Assistant-Controllers, 196, 197
 Cost, 197
 (See also *Tombs, R. C.*, and
Badcock, J. C.)
 Lonsdale, Captain, ii. 260
 Louis, George, 9, 13, 29-31, 56, 113,
 114, 208 ; ii. 217, 218
 Lundy Island cable, ii. 101, 102
- M.
- Maberly, Lieutenant-Colonel R.E.,
 107, 110, 113, 117, 129-132, 163
 Maberly, F. H., 313
 Macadam, Mr., 3, 9, 11
 Maclean, A., ii. 161
 McClusky, J., 77, 78
 MacMurtrie, R., 96
 McNab, Mr., ii. 95
 Mail-carts :
 Rides, 51, 52
 Chatham to Brighton, 206, 207
 Economy, ii. 213
 Mail-coach Office, 29, 30
 Mail-coaches, 2, 5, 6, 25, 27, 29
 Departure from London, 7-9, 12
 Annual mileage, 21
 Number, total cost, dimen-
 sions, last coach, fast coaches,
 22-24
 Table of speed and payments,
 25
 Cost of construction, Govern-
 ment duty and tolls, weight,
 lamps, 55
 Decline, 58
 Longest ride, 99
 Cost of Edinburgh trip, 111,
 112
 Great North Road, comparison,
 1829-1836, Appendix E
- Mail-coachmen, 43, 44, 56, 100
 Mail-guards, 56, 100
 Mail-office, 29, 30
 Mail-packets, ii. 180-186. (See also
Contract Packets.)
 Mails :
 Robberies of, 145, 279-281
 First sent by rail, ii. 196
 Mail-trains, 184, 194
 Chief routes, ii. 197-200
 West of England, 185 ; ii. 198
 Time-bills, Appendix H
 (See also *Special Postal-train.*)
 Maintenance of telegraphs, ii. 44-48
 Manchester mail-coach, 7, 94
 Telegraph, 55
 Manipulators, ii. 77
 Manners, Rt. Hon. Lord John,
 M.P. (See *Rutland, Duke of.*)
 Maury, W., 120
 Mawson, T., ii. 115, 116, 119
 May, E., ii. 30, 77
 Measor, P., 117
 Medical Department :
 Officers, 250, 251
 Health precautions, 252
 Melbourne, Lord, 104, 121 ; ii. 260
 Mellersh, H., 186
 Melville, Sir J. C., ii. 225
 Menai Suspension Bridge, 66, 67
 Messum, J. Y., R.N., ii. 181
 Metropolitan Surveyor, 30
 Metropolitan telegraphs, ii. 39, 40
 Rehearsal, ii. 28
 Sixpenny rate, ii. 39
 Success, ii. 40
 Galleries, ii. 77
 Circulation, ii. 84
 Midland Railway Company, 12, 26
 Mince pies, ii. 121
 Mitford, W., 257
Monarch, perilous voyage, ii. 93-96
 Money bills, ii. 8, 15
 Money Orders : Office, 247, 250
 Fraud, 277-280
 Foreign, etc., ii. 162
 Monsell, Rt. Hon. W., M.P. (Lord
 Emly), 218
 Montgomerie, Dr., ii. 51
 Montrose, Duke of, 217 ; ii. 6, 128
 Moorsom, Admiral, 73

Moriarty, Captain, R.N., 335
 Morley, Rt. Hon. Arnold, 231, 232
 Morse, Professor, 318, 330
 Mortleman, Mr., ii. 190
 Mount Pleasant, ii. 136, 139
 Muloch, W. H., 279, ii. 142
 Mulready envelope, 123
 Muntz, Mr., M.P., 126
 Murray, J., R.N., ii. 259

N.

Nash, G., ii. 180
 Nautical Adviser, 256
 Neele, G. P., ii. 122, 203
 Nelson, R., 56
 Nether Stowey fraud, 277, 288
 Nevill, F., ii. 122
 Newall, R. S., ii. 92
 Newcastle Post-Office, 260, 261
 Coaches, Appendix B
 News supply:
 Cheapened tariff, ii. 27, 78, 79
 Special arrangements, ii. 69-72
 Abridged reports, ii. 71
 Special staff, ii. 71
 Provincial press and ordinary rates, ii. 78, 79
 Wheatstone transmission to large towns, ii. 71, 79
 Newspaper:
 Post, 139, 192; ii. 265
 Trains, ii. 209
 Night mail:
 From London generally, 192-194; ii. 211
 Up, 184
 From Euston, ii. 198, 199
 New mails, 219
 Compared with day mail, ii. 208, 212, 213
 Irish. (See *Irish Mail-service*.)
 Scotch. (See *Scotch Mail-trains*.)
 Nind, S. L., 315
 Nobbs, M., 40, 41, 52, 56; ii., 108-112
 Normanton, 154-158
 Normanton and Bangor mail-train, ii. 199
 'North Mail,' ii. 197, 198

Notice trains, ii. 208, 211
 Nova Scotia, ii. 262

O.

Oakeshott, G. A., ii. 205, 207
 Oersted, Professor, 322
 Office of Works, ii. 132, 133
 Opium ii. 242
 Orient Line, ii. 247, 277-280
 Osborn, E. B., 276-280
 O'Shaughnessy, Dr., 330
 Overland Mail and Route, ii.
 Waghorn's efforts, 226-229
 French Convention, Egyptian transit, 233
 The *Himalaya*, 233, 234
 Safety of route, 237
 'Abstract' Mail, 238-240
 High charges, 242
 Captain Wilson, 242
 The canal, 243
 Details of route, 246
 Australia, 272, 275
 Overstone, Lord, 106
 Overtaking the mail, 47, 48
 Oxford Parcel-coach, 59

P.

Pacific Line, ii. 180
 Packet Branch. (See *Foreign and Colonial Branch*.)
 Packets. (See *Contract Packets*.)
 Page, E. J., 30, 172; ii. 191
 Page, W. J., 172; ii. 161, 180
 Palmer, J., 31, 99
 Palmerston, Viscount, M.P., ii. 243
 Parcel-coaches:
 Procession, 6
 Brighton, ii. 145-147, 150, 151
 Liverpool and Manchester, ii. 145, 151
 Oxford, ii. 145, 150-154
 Chatham, Windsor, Watford, Bedford, Broxbourne, 150
 Colchester, Tunbridge Wells, 150, 153
 Lamps, fire-arms, weight, ii. 143, 149
 Parcel Post:
 Established, 287; ii. 123
 Act, 292; ii. 143

Parcel Post—continued

- Difficulties, ii. 129
- Prepayment, ii. 130, 131
- Points considered, ii. 130-132
- Baskets, ii. 131
 - Contents, ii. 207
- Delivery, ii. 132
- Enlargement of offices, ii. 133
- Produce per parcel, ii. 135
- Bottles, ii. 138
- First decade, ii. 139
- Railway companies' share, ii. 143
- Road-borne parcels, ii. 144
- Despatches from Euston, ii. 213
- Parcel Post (Foreign and Colonial), ii. 163-165, 175, 176
 - Compensation and insurance, ii. 177
 - India, ii. 165, 168
 - Egypt and Gibraltar, ii. 166
 - Belgium, Germany, Malta, West Indies, Cape, and Central and Northern Europe, ii. 167, 168
 - Australia and New Zealand, ii. 169, 170
 - Canada and Newfoundland, ii. 171
 - Natal, West Africa, Argentina, Chili, 173
 - Columbia, Costa Rica, France, Spain, Portugal, and Switzerland, ii. 173
 - Mauritius, Bermuda, East Africa and Queensland, ii. 174; Mexico, ii. 175
- Parkhurst, Rodie, 133
- Paterson's 'Roads,' 21
- Patey, C. H. B., C. B., ii. 21
- Paton, R., 267, 268
- Peacock, M. B., 120, 273, 274
- Peacock, R. W., 276-278
- Pender, Sir John, M.P., 336
- Peninsular and Oriental Line :
 - Indian parcels, ii. 165, 182
 - William Fawcett*, ii. 223
 - Establishment, ii. 224, 225
 - Mediterranean mails, ii. 232
 - Service to Gibraltar and Bombay, ii. 234, 235, 240, 247

Peninsular and Oriental Line—continued

- Aden, Ceylon, Calcutta, China, ii. 235-237, 242
- Underwriting, ii. 236, 237
- The Mutiny and Crimea, ii. 240
- Suez Canal, ii. 243
- Australia, ii. 242, 243, 247, 272, 275
- Horse-power, ii. 244, 245
- Brindisi train, ii. 246
- Indian Seas, ii. 275-277
- Quick passages, ii. 279, 280
- Past and present, ii. 280
- Himalaya* (old), Appendix I.
- Penn, John, 73
- Penny Postage :
 - Opposition, 112, 113
 - Advocates, 114
 - Former penny posts, 115, 116
 - Loss of revenue, 129
 - Newspaper postage, 139
 - Relations to rail, ii. 191, 192
 - Liverpool (address of Corporation, 1894), Appendix J.
 - (See also *Postage*.)
- Perring, R. M., ii. 157
- Phillips, John, 279
- Phillip, Captain A., ii. 259
- Phillips, Edward, 267
- Phonopore, ii. 61, 62
- Pigeon Post, ii. 124, 125
- Pioneers of electro-telegraphy, 318
- Pitman, Mr., 290
- Playfair, Rt. Hon. Sir Lyon, M.P. (Lord Playfair), 218
- 'Please return empties,' 272
- Pneumatic Despatch Company, 137
- Pneumatic tubes, ii. 74-76
- Postage :
 - Former rates, 103, 104
 - High postage, 105, 106, 110
 - Average rate, 109
 - Half-ounce letters, 114, 120, 121
 - Prepayment, 114, 115
 - Regulated by distance, 117
 - Graduated scales, 117, 118
 - Evasion, 119

- Postage—continued**
 Reduced on heavy letters, 221
 On colonial parcels, ii. 173
 Uniform European, ii. 159-162
 To India in the forties, ii. 230
 French transit, ii. 233
 (See also *Penny Postage*.)
 Postal orders, 250, 251
 Posting-towns in the West, 37, 38
 Postmaster-General:
 Pouch, 210, 211
 Hard work, 210, 211
 Position at Post-Office, 211, 212
 Relation to Treasury, 212-214
 When a Cabinet Minister, 215
 D. Griffith's Act, 233
 'P.M.G.' (the term), ii. 134
 Postmasters, 242, 259
 In London, 196, 197
 Military, 262-265
 Postmen:
 River, 127
 Their bells, 127, 128
 Metropolitan, 188
 Rural, 194; ii. 134
 Post-Office:
 First telegraph office at, 143; ii. 64
 Recent changes, 180
 Surveillance, 193, 241
 Not free agent, 212, 223, 224
 Popular in Parliament, 234
 Aim, 241
 Force, 242
 Revenue and expenditure, 244
 Its banks, telegraphs, revenue, ii. 284, 285
 Post-Offices, number in 1840 and 1893, 209
 Posts:
 Fifth clause, 116
 Twopenny, 166
 Late, 220
 Pigeon, ii. 124, 125
 Malle-postes, ii. 238
 (See also *Penny Postage*.)
 Post-towns, comparative cost, 261, 262
 Power, Harold, 171
- Preece, W. H., C.B., F.R.S., 330; ii. 33, 41, 44, 48, 49, 97-99, 291
 Prince Consort, H.R.H., the, ii. 214
 Prince of Wales, H.R.H., ii. 286
 Prowse, R. T., ii. 141
 Purcell, P., 76
 Pyne, H., 36
 Pyne, T., 36
- Q.
- 'Queen's Head,' 123
 'Queen's Speech,' 189
 'Quicksilver,' 39, 41-45
 Quinine, ii. 166
- R.
- Raffles, Sir S., 5
 Raikes, Right Hon., H. C., M.P., 226-230; ii. 148, 282-284, 293
 Railway Companies:
 Competition, 96
 Coaches ousted, 98
 Telegrams, 301
 Friendly with P.O., ii. 192
 Payment, ii. 193, 207, 208
 General Managers, ii. 193, 196, 206
 (See also *Great Northern, Great Western, etc., Railway Companies*.)
 Raymond, J., ii. 261
 Rea, E. H., C.M.G., ii. 158, 160, 180, 262
 'Reading' (from telegraphs), ii. 63-65
 Receiver and Accountant-General, 243, 247, 250; ii. 35
 Receptacles in 1840 and 1893, 209
 Reep, R. T., ii. 256
 Reeves, Sims, ii. 290
 Relay, an early idea, ii. 66
 Rendel, Mr., C.E., 69
 Returned Letter Office, 253, 255, 256
 Returns (statistical), difficult to obtain, 111
 Reuter's Telegram Company, ii. 23
 Ricardo, J. L., M.P., 143
 Richardson, G., 247
 Richmond, Duke of, 2, 27, 64
 Riot, threatened, 168

'Roads,' 26, 191, 192
 Roads (mail-coach), 2, 20, 21, 63.
 (See also *Bath Road, Brighton Road*, etc.)
 Robbery of G.W. Mails, 145-147
 Of German Mails, 279, 280
 Robinson Crusoe, a new, 281, 282
 Rodwell, Mr., Q.C., ii. 6
 Rolt, Mr., ii. 141
 Ronalds, Sir F., 318, 322-324; ii. 100
 Roney, C. P., 73
 Rowland Hill Benevolent Fund, ii. 286, 292
 Royal Mail Line, ii. 157, 248-256
 Brazil and River Plate, ii. 252, 255
 Losses, ii. 253
 Courageous front, ii. 254, 255
 Rural Posts, 194
 Russell, Right Hon. Lord John, M.P., ii. 214
 Russell, Scott, 73
 Rutland, Duke of, K.G., 218, 225; ii. 207

S.

Sachse, G. A., ii. 164
 Sailing Packets, ii. 263, 264, 266.
 (See also *Contract Packets*.)
 St. Albans, Fraud at, 278
 St. Kilda, ii. 172, 173
 St. Martin's-le-Grand (east side), 164
 Gas, 165
 Central hall, 168-170, 189, 190
 Evening, 186, 187
 Posting at G.P.O., 187
 Steam at, ii. 192
 Excavation, ii. 133
 Basement (west side), ii. 74, 186
 Pneumatic tube room, ii. 75
 Ground-floor, ii. 75, 76
 Top floors, ii. 76
 (See also *Central Telegraph Station*.)
 Salaries, 128
 Samuel, Sir S., K.C.M.G., ii. 171
 Sandwich, Earl of, ii. 106
 Sanger, T. H., 289; ii. 32, 33

Savings Bank :

Sir C. W. Sikes, Sir R. Hill,
 Sir E. Baines, 136
 Messrs. Scudamore and Chetwynd, 182
 Formation, 247-249
 Controller, 247
 Clerks, cross-entry, 249
 Ubiquity, 250
 Robbery, 280, 281
 Acts of Parliament, 293
 Deposits, ii. 284

Schemes :

Acquisition of telegraphs, 300
 Ocean telegraphy, 300, 306
 1854, 302-305; ii. 3-5
 Coast communication, 310-314
 Telephones, 315, 316
 Canadian telegraphs, 308-310

Scotch mail-coaches, 96-102

Last, 98. (See also *Highland Coaches*.)

Scotch mail-trains, ii. 119, 199, 203, 211

Scotch mails sent by road, ii. 115-118

Screw :

Couplings, ii. 72
 Propeller, 81

Scudamore, Frank Ives, C.B., 172

Mr. Chetwynd, 181, 182
 Mr. Gladstone, 248
 Report on telegraphs, ii. 3, 4
 Chief agent, ii. 6, 7
 Sketch of, ii. 11-13
 Irish telegraphs, ii. 32
 Aid to memory, ii. 86

Secretariat, 171

In Scotland and Ireland, 257
 (See also *Secretary's Office*.)

Secretary of P.O. :

Position, 212, 213
 Relation to P.M.G., 213, 214

Secretary's Office :

The 'Secretary,' 242
 Financial secretary, 243
 Third secretary, 243
 Assistant secretaries, 243
 (See also *Buildings Branch, Home Mails Branch*, etc.)

Shaw, W. H., 9; ii. 33

- Shepperd, H. J., ii. 23
 Sheriff, Captain, 43
 Sherman, Mr., 57
 Ship letters, ii. 264, 277
 Shipments of specie, ii. 251, 252
 Shorthand writers, ii. 34
 Shrewsbury mail-train, ii. 199
 Siemens, C. W., 337
 Siemens, Werner, 331
 Sifton, T. E., ii. 205, 207
 Sikes, Sir C. W., 136, 247, 248
 Silk, H. C., ii. 120, 121
 Simpson, Mr., 46
 Sivewright, Sir J., K.C.M.G., ii. 97-99
 Sixpenny (telegraph) rate, 152, 327, 328; ii. 37, 39
 Smirke, Sir R., 163
 Smith, E. J., 263; ii. 263
 Smith, F. P., 81
 Smith, G. R., 253; ii. 142
 Smith, James, 266, 267
 Smith, Mr. (District Engineer), ii. 122
 Smith, R. R., ii. 263
 Smith, W. H., and Son, ii. 209
 Smith, William, ii. 107
 Smith, Willoughby, ii. 91
 Smithett, Sir Luke, 73; ii. 189
 Snow :
 A telegraph episode, ii. 47, 48
 Severe storms, ii. 105, 112-114
 Coaches hindered, ii. 105-112
 Bristol and Portsmouth Coach, ii. 109, 110
 Cheltenham and Aberystwyth Coach, ii. 110-112
 Author's experience, ii. 112
 Mail-trains hindered, ii. 113-115, 119
 Solicitor, 243, 270
 Assistant-Solicitor and staff, 270
 Duties, 272, 273, 293-295
 Dublin, 270, 287
 Edinburgh, 270, 290
 Sömmering, Herr, 330
 Sorting, 164, 190-192; ii. 210
 On Packets, ii. 180, 181
 Sorting—*continued*
 Sorters, 192, 193, 202
 (See also *Travelling Post-Offices*.)
 Special postal train, 184, 185; ii. 198, 199, 203-206, 211
 Speed of mail-trains, ii. 196, 197, 215-218
 Staff of the Post-Office, 242, 243
 Stage-coaches, 4, 5, 7
 Barnet, Appendix A.
 Newcastle-on-Tyne, Appendix B.
 Devonport, Appendix C.
 Exeter, Appendix D.
 London (day), Appendix F.
 Stamps, 123, 124
 Stanley of Alderley, Lord, 213, 217, 248, 303-305; ii. 3, 5, 128
 Stanley, Captain, ii. 271, 272
 Statham, Mr., ii. 91
 Steam carriage, 14, 15
 Steamers. (See *Contract Packets*.)
 Stearns, Mr. (Boston, U.S.A.), 320, 321; ii. 64
 Steet, G. C., 250
 Stephan, Von, ii. 160, 164
 Stephen, Leslie, 234, 238
 Stephenson, R., 68, 69; ii. 127, 191
 Stores, ii. 46
 Stow, D. W. (Superintending President), 29, 30
 Stow, G. (Surveyor Mail-Coaches), 29, 49
 Stow, G. E. (Metropolitan Surveyor), 30
 Stripe pay, 20
 Submarine telegraphs :
 Early experiments, 329-333
 Prosperity, ii. 93
 Charges, ii. 96, 328, 329
 Speed of working, ii. 100
 (See also *Cables, submarine*.)
 Sub-postmasters, 265, 266
 Suez Canal, ii. 243
 Superintendents of mail-coaches, 29-31
 Surveyors, 242, 257-259; ii. 141
 Surveyor-General for Scotland, 257

Surveyors—continued

- Surveyor-General for telegraph business, ii. 19, 49
- Jamaica and West Indies, ii. 157, 158
- Suspension Bridges, 67
- Sutherland, Sir T., M.P., ii. 244
- Sutton and Sons, Messrs., ii. 139

T.

- Tansley, E., ii. 33
- Tapp, G. R., ii. 34
- Taylor, Colonel Du Plat, ii. 20, 21, 35

Technical training, ii. 49, 50**Telegrams :**

- Produce, ii. 37
- Swift transmission, ii. 40, 41
- Collection and distribution, ii. 68
- Routes, ii. 72-74
- For abroad, ii. 80

Telegraph Acts, 292 ; ii. 6, 14, 15**Telegraph branch :**

- Branch offices, ii. 20
- Work in 1870, ii. 34, 35
- Interest on outlay, ii. 38

Telegraph circuits :

- Draft map, ii. 15
- Clear circuits, ii. 16-18
- Omnibus, ii. 16, 67
- Recasting circuits, ii. 17, 18
- Working, ii. 67
- Town and village, ii. 67, 68
- Temporary, ii. 70, 72
- Permanent and cable, ii. 81, 82
- (See also *Central Telegraph Station and Wires.*)

Telegraph clerks, 154**'Telegraph' Coach, 42, 43****Telegraph companies :**

- Magnetic, ii. 9, 10, 23, 53
- United Kingdom, ii. 9, 10, 23
- Electric and International, ii. 9, 10, 23, 53
- London and Provincial, ii. 23
- Reuter's, ii. 23
- Universal Private, ii. 23
- Submarine, ii. 80, 91
- Valuation of property, ii. 14
- Compensation, ii. 23

Telegraph instruments :

- Chief forms, ii. 59
- Double needle, 148, 149, 156, 319
- Wheatstone and A B C, ii. 59
- Single needle, 318 ; ii. 9, 59, 61
- Transmitter and Receiver, 319, 320 ; ii. 58, 71, 79, 87
- Sounder, 319 ; ii. 59, 87
- Morse Printing, 319 ; ii. 59, 63
- Duplex, 320, 321 ; ii. 64
- Hughes' Type-writer, ii. 10, 63, 101
- Bell, ii. 59, 60
- Inkwriter, ii. 59, 60
- Quadruplex, ii. 64, 87
- Multiplex, ii. 64, 65, 87
- Relay, ii. 65, 66, 87, 88, 101
- Repeater, ii. 66, 71
- Accumulator, ii. 74, 75
- Mirror and Syphon Recorder ii. 87, 96, 98

Telegraphs (electric) :

- Introduced, 142
- Increase of business, 152, 153
- Colonial, 307
- Rate of working, 320
- Expense, 244 ; ii. 48
- Vote for TS, ii. 76
- Surveyor-General, ii. 19, 49
- Mileage, ii. 44
- To France, 331 ; ii. 93
- Revision of, ii. 33, 34
- Days of pressure, ii. 25-31
- Stock Exchange, ii. 77, 78
- (See also *Wires.*)

Telephones :

- A scheme, 314-317 ; ii. 59, 61, 80
- State reluctant to acquire, 315
- Private, 316
- To Paris, ii. 80
- Telford, Mr., C.E., 3, 9, 11, 63, 66
- Thompson, J., ii. 203
- Thompson, Prof. (Lord Kelvin), ii. 96
- Thompson, R., 288, 289
- Thurso Coach, 97, 99, 100
- Tilley, Sir J., K.C.B., 163, 164, 174, 175 ; ii. 282

